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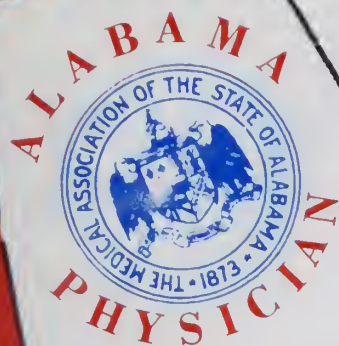
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# JOURNAL

## of the Medical Association of the State of ALABAMA



JULY-AUGUST 1976-77

vol. 46 #1/2

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OCT 6 - 1976

M.D.S.





# Both often



● Predominant  
psychoneurotic  
anxiety

● Associated  
depressive  
symptoms

**Before prescribing, please consult complete product information, a summary of which follows:**

**Indications:** Tension and anxiety states; somatic complaints which are concomitants of emotional factors; psychoneurotic states manifested by tension, anxiety, apprehension, fatigue, depressive symptoms or agitation; symptomatic relief of acute agitation, tremor, delirium tremens and hallucinosis due to acute alcohol withdrawal; adjunctively in skeletal muscle spasm due to reflex spasm to local pathology, spasticity caused by upper motor

neuron disorders, athetosis, stiff-man syndrome, convulsive disorders (not for sole therapy).

**Contraindicated:** Known hypersensitivity to the drug. Children under 6 months of age. Acute narrow angle glaucoma; may be used in patients with open angle glaucoma who are receiving appropriate therapy.

**Warnings:** Not of value in psychotic patients. Caution against hazardous occupations requiring complete mental alertness. When used adjunctively in convulsive dis-

orders, possibility of increase in frequency and/or severity of grand mal seizures may require increased dosage of standard anticonvulsant medication; abrupt withdrawal may be associated with temporary increase in frequency and/or severity of seizures. Advise against simultaneous ingestion of alcohol and other CNS depressants. Withdrawal symptoms (similar to those with barbiturates and alcohol) have occurred following abrupt discontinuance (convulsions, tremor, abdominal and muscle cramps, vomiting and sweating). Use with caution in addiction-prone individuals under careful

# respond to one

According to her major symptoms, she is a psychoneurotic patient with severe anxiety. But according to the description she gives of her feelings, part of the problem may sound like depression. This is because her problem, although primarily one of excessive anxiety, is often accompanied by depressive symptomatology. Valium (diazepam) provides relief for both—as excessive anxiety is relieved, the depressive symptoms associated with it are also relieved.

There are other advantages in using Valium for the management of psychoneurotic anxiety with secondary depressive symptoms: the psychotherapeutic effect of Valium is pronounced and rapid. This means that improvement is usually apparent

in the patient within a few days rather than in a week or two, although it may take longer in some patients. In addition, Valium (diazepam) is generally well tolerated; as with most CNS-acting agents, caution patients against hazardous occupations requiring complete mental alertness.

Also, because the psychoneurotic patient's symptoms are often intensified at bedtime, Valium can offer an additional benefit. An *h.s.* dose added to the *b.i.d.* or *t.i.d.* treatment regimen can relieve the excessive anxiety and associated depressive symptoms and thus encourage a more restful night's sleep.



## Valium<sup>®</sup> (diazepam) <sup>Ⓢ</sup>IV

2-mg, 5-mg, 10-mg scored tablets

in psychoneurotic  
anxiety states  
with associated  
depressive symptoms

surveillance because of their predisposition to habituation and dependence. In pregnancy, lactation or women of child-bearing age, weigh potential benefit against possible hazard.

**cautions:** If combined with other psychotropics or anticonvulsants, consider carefully pharmacology of agents employed; drugs such as phenothiazines, narcotics, barbiturates, MAO inhibitors and other antidepressants may potentiate action. Usual precautions indicated in patients severely depressed, or with latent depression, or with suicidal tendencies.

Observe usual precautions in impaired renal or hepatic function. Limit dosage to smallest effective amount in elderly and debilitated to preclude ataxia or oversedation.

**Side Effects:** Drowsiness, confusion, diplopia, hypotension, changes in libido, nausea, fatigue, depression, dysarthria, jaundice, skin rash, ataxia, constipation, headache, incontinence, changes in salivation, slurred speech, tremor, vertigo, urinary retention, blurred vision. Paradoxical reactions such as acute hyperexcited states, anxiety, hallucinations, increased muscle

spasticity, insomnia, rage, sleep disturbances, stimulation have been reported; should these occur, discontinue drug. Isolated reports of neutropenia, jaundice; periodic blood counts and liver function tests advisable during long-term therapy.



Roche Laboratories  
Division of Hoffmann-La Roche Inc.  
Nutley, New Jersey 07110

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# The JOURNAL

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# Trice Nichols takes the fuss out of filing a claim.

Most health insurance claims are simple to file. Though we admit you'll come upon an occasional toughie. That's when you need somebody like Trice Nichols. A troubleshooter. A problem solver. And a specialist on the finer points of health insurance.

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**Blue Cross<sup>®</sup>**  
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of Alabama

## "DOCTOR RUSH"—

### A FAMILIAR NAME AT MASA

THE May, 1976, *Journal* reported on a new name synonymous at MASA headquarters with an emergency order for a physician's printed office supplies when urgent replenishment of supplies is necessitated due to sudden and unexpected low stock. The article stated when an emergency order comes to MASA, the Printing Department places a special tag, "Dr. Rush" on the order, which gives it the highest priority.

These emergency orders are not unique, but can be classified as "the exception rather than the rule." However, when they do arise, MASA's Printing Department employees are charged with treating the work production with the same high quality and in the same manner as they do all orders and general Association printing.

MASA's Printing Department has experienced perhaps the greatest degree of growth during the past year than any other department within the organizational structure. Over 20 per cent of MASA's membership are now taking advantage of top-quality printed material for approximately one-half the amount they would ordinarily pay to commercial printers.

The *Journal* and the *Alabama M.D.* are printed in their entirety within the confines of MASA's Printing Depart-



MASA Printer Randall McTier is attentive to production of quality work.



ment (this includes the additional amount of work required for typesetting, layout, photo development and artwork).

The *Roster*, *Transactions* of MASA's College of Counselors and House of Delegates, reports by councils, posters and many other printing jobs are performed by those individuals who, together, make up one of the finest printing departments of any state or county medical society.

As a matter of fact, it was only recently that officials from a sister state medical association visited MASA headquarters to see the production capability and general composition of our printing facilities. Other state associations have already telephoned to share their interest in learning more about this valuable service afforded to MASA members.

During the recent AMA Convention in Dallas, it was not unusual to have a member of Alabama's delegation approached by association executives and state medical officers inquiring about MASA's Printing Department. Some were astonished at this capability; some even expressed disbelief. All were granted open invitations to visit Montgomery at any time and let MASA's staff "show you around."

MASA's members are encouraged to take advantage of this unique and money-saving service. The savings begin to mount up, particularly with re-orders and over a period of time, a member will save many hundreds of dollars on office printing alone.

\*\*\*

The *Transactions of the Medical Association of the State of Alabama* will be placed in the mail to the membership this month and its structure will follow closely those of past editions. This unique supplement to the *Journal* has proven time and again its value as a quick and easy reference for such items as: Annual Session Actions; reports of officers, councils and reference committees; annual report of the State Health Officer; members of peer review committees; listings of MASA's officers, counsellors and delegates; and a summary of annual attendance since 1930. ■

a new  
tablet  
design  
for

# Orinase<sup>®</sup>

tolbutamide, Upjohn  
0.5 Gm tablets



This new design will help pharmacists, physicians, nurses, and patients identify Orinase by name and manufacturer. The number on the tablet is for identification and is not related to tablet strength.

You may wish to advise your patients that this change is taking place.



# WHEN ANXIETY INTERFERES.

**The cardiac patient and anxiety.**



**“The [cardiac] patient is anxious about minor symptoms, about the implications of his diagnosis, and about real or imagined limitations of function.”\***

The worst is over. The cardiac patient is out of the acute stage, out of the hospital, and well on his way to recovery. How quickly he comes back to near normal functioning may depend on his psychological as well as his physical rehabilitation.

Clinical anxiety, for example, may be one reason for prolonged recuperation following cardiac healing. Yet anxiety can sometimes be beneficial in facilitating patient compliance.


The patient who is realistically concerned about resuming his precoronary functioning may be

highly motivated to adhere to his rehabilitation regimen. However, the cardiac patient with *excessive* or unresolved anxiety may be so fearful of future heart failure that he refrains from your prescribed regimen. These excessively anxious cardiac patients eventually present the same clinical characteristics as patients deconditioned by bed rest.

**Excessive anxiety can interfere with patient management**

When excessive anxiety diminishes your

patient's ability to participate fully in his rehabilitation program, your counseling and reassurance are often sufficient. But when his anxiety is so great that it actually interferes with his ability to listen and respond, you may want to consider the addition of an adjunctive antianxiety agent to help reduce his excessive anxiety to more manageable levels.



*9/21 Clinical recovery confirmed but excessive anxiety persists. Seems to be inhibiting return to full activity*

*normal tracings*

## **Librium® (chlordiazepoxide HCl)** an effective adjunct to your reassurance and counseling

**Safety:** Librium has a highly favorable benefits-to-risk ratio and a wide margin of safety. Because of its low incidence of side effects, it is regarded as one of the safest antianxiety agents available. And Librium does not adversely affect the cardiovascular system. See complete product information for warnings, precautions and adverse reactions.

**Performance:** Hundreds of clinical trials, thousands of published papers, and millions of patients comprise the record of performance for Librium.

**Concomitant use:** Of special significance in treating the cardiac patient already taking multiple agents is the fact that Librium is used concomitantly with most primary medications, such as cardiac glycosides, diuretics and antihypertensives.

\* Zohman BL. *Geriatrics* 28 110-119, Feb 1973

Before prescribing, please consult complete product information, a summary of which follows:

**Indications:** Relief of anxiety and tension occurring alone or accompanying various disease states.

**Contraindications:** Patients with known hypersensitivity to the drug.

**Warnings:** Caution patients about possible combined effects with alcohol and other CNS depressants. As with all CNS-acting drugs, caution patients against hazardous occupations requiring complete mental alertness (e.g., operating machinery, driving). Though physical and psychological dependence have rarely been reported on recommended doses, use caution in administering to addiction-prone individuals or those who might increase dosage; withdrawal symptoms (including convulsions), following discontinuation of the drug and similar to those seen with barbiturates, have been reported. Use of any drug in pregnancy, lactation, or in women of childbearing age requires that its potential benefits be weighed against its possible hazards.

**Precautions:** In the elderly and debilitated, and in children over six, limit to smallest effective dosage (initially 10 mg or less per day) to preclude ataxia or oversedation, increasing gradually as needed and tolerated. Not recommended in children under six. Though generally not recommended, if combination therapy with other psychotropics seems indicated, carefully consider individual pharmacologic effects, particularly in use of potentiating drugs such as MAO inhibitors and phenothiazines. Observe usual precautions in presence of impaired renal or hepatic function. Paradoxical reactions (e.g., excitement, stimulation and acute rage) have been reported in psychiatric patients and hyperactive aggressive children. Employ usual precautions in treatment of anxiety states with evidence of impending depression; suicidal tendencies may be present and protective measures necessary. Variable effects on blood coagulation have been reported very rarely in patients receiving the drug and oral anticoagulants; causal relationship has not been established clinically.


**Adverse Reactions:** Drowsiness, ataxia and confusion may occur, especially in the elderly and debilitated. These are reversible in most instances by proper dosage adjustment, but are also occasionally observed at the lower dosage ranges. In a few instances syncope has been reported. Also encountered are isolated instances of skin eruptions, edema, minor menstrual irregularities, nausea and constipation, extrapyramidal symptoms, increased and decreased libido—all infrequent and generally controlled with dosage reduction; changes in EEG patterns (low-voltage fast activity) may appear during and after treatment; blood dyscrasias (including agranulocytosis), jaundice and hepatic dysfunction have been reported occasionally, making periodic blood counts and liver function tests advisable during protracted therapy.

**Supplied:** Librium® Capsules containing 5 mg, 10 mg or 25 mg chlordiazepoxide HCl. Libritabs® Tablets containing 5 mg, 10 mg or 25 mg chlordiazepoxide.



Roche Laboratories  
Division of Hoffmann-La Roche Inc.  
Nutley, New Jersey 07110

Adjunctive

**LIBRIUM®**   
**chlordiazepoxide HCl/Roche**  
**5 mg, 10 mg, 25 mg capsules**

# **THE ANXIETY-SPECIFIC**



# VISUAL FOCUS ON ACUTE GOUTY ARTHRITIS



Foot of patient with acute gouty arthritis as seen by conventional x-ray.



Scintiphotogram of same foot reflects inflammatory process.

The scintiphotograph on the right shows increased uptake of radiotechnetium polyphosphate in the metatarsophalangeal joint and the proximal interphalangeal

joint of the great toe of a patient with acute gouty arthritis. This increased uptake probably results from increased vascularity in the affected areas.

For a more detailed description of scintiphotography, see "addendum" at right.

# THERAPEUTIC FOCUS ON

CAPSULES, 25 mg and 50 mg

# INDOCIN<sup>®</sup>

## (INDOMETHACIN | MSD)

*helps relieve pain  
and other symptoms  
of inflammation  
in acute  
gouty arthritis  
in selected patients*

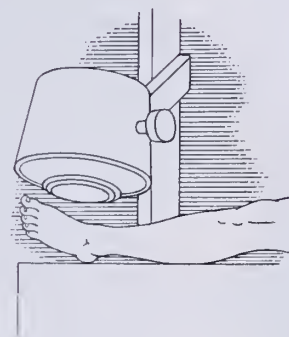
INDOCIN is a potent drug with anti-inflammatory, antipyretic, and analgesic properties. It should not be used in conditions other than those recommended. Although INDOCIN does not alter the progressive course of the underlying disease, in selected patients with acute gouty arthritis it has been found highly effective in relieving pain and in reducing fever, swelling, and tenderness.

**MSD**  
MERCK  
SHARP  
DOHME

For a brief summary of prescribing information, please see following page.

MSD  
MERCK  
SHARP  
DOHME  
addendum

### Facts about Scintiphotography



In recent years a variety of radiopharmaceuticals have been employed to aid in the diagnosis of bone and joint disorders. The joint-imaging technique consists of injecting technetium polyphosphate intravenously, and imaging is performed with the scintillation camera two hours after the administration of the radionuclide. In general, for joint surveying, the shoulders, elbows, hands, wrists, knees, ankles, feet, and vertebral column are mapped. The entire scanning process takes approximately one hour. The criterion for a positive image is a higher concentration of radioactivity in a joint region than in adjacent nonarticular bone. In effect, each patient serves as his own control.

# INDOCIN<sup>®</sup>

(INDOMETHACIN | MSD)



helps relieve pain  
and other symptoms  
of inflammation  
in acute  
gouty arthritis  
in selected patients

**IMPORTANT NOTE:** INDOCIN (Indomethacin, MSD) cannot be considered a simple analgesic and should not be used in conditions other than those recommended. The drug should not be prescribed for children because safe conditions for use have not been established.

Because of the high potency of the drug and the variability of its potential to cause adverse reactions, the following are strongly recommended: 1) the lowest possible effective dose for the individual patient should be prescribed. Increased dosage tends to increase adverse effects, particularly in doses over 150-200 mg per day, without corresponding clinical benefits; 2) careful instructions to, and observations of, the individual patient are essential to the prevention of serious and irreversible, including fatal, adverse reactions, especially in the aging patient.

**Contraindications:** Children 14 years of age and under; pregnant women and nursing mothers; active gastrointestinal lesions or history of recurrent gastrointestinal lesions; allergy to aspirin or indomethacin.

**Warnings:** *Gastrointestinal Effects:* Because of the occurrence and, at times, severity of gastrointestinal reactions, be continuously alert for any sign or symptom signaling a possible gastrointestinal reaction. The risks of continuing therapy with INDOCIN in the face of such symptoms must be weighed against the possible benefits to the individual patient. Gastrointestinal effects may be reduced by giving the drug immediately after meals, with food, or with antacids. Use greater care in aging patients.

*Ocular Effects:* Corneal deposits and retinal disturbances, including those of the macula, have been observed in some patients on prolonged therapy. Discontinue therapy if such changes are observed. Ophthalmologic examination at periodic intervals is desirable in patients on prolonged therapy.

*Central Nervous System Effects:* INDOCIN may aggravate psychiatric disturbances, epilepsy, and parkinsonism, and should be used with considerable caution in patients with these conditions. If severe CNS adverse reactions develop, discontinue the drug.

**Precautions:** Blurred vision may be a significant symptom that warrants a thorough ophthalmologic examination. Patients should be cautioned about engaging in activities requiring mental alertness and motor coordination, as driving a car. Headache which persists despite dosage reduction requires complete cessation of the drug. May mask the usual signs and symptoms of infection; therefore, the physician must be continually on the alert for this and should use the drug with extra care in the presence of existing controlled infection. After the acute phase of the disease is under control, an attempt to reduce the daily dose should be made repeatedly until the patient is off entirely.

*Drug Interactions:* Although INDOCIN has not influenced the hypoprothrombinemia produced by anticoagulants, patients on anticoagulant therapy should be observed closely for alterations in prothrombin time. In patients receiving probenecid, plasma levels of indomethacin are likely to be increased and a lower total daily dose of INDOCIN may produce a therapeutic effect; increases in the dose of INDOCIN should be made cautiously and in small increments.

**Adverse Reactions:** *Gastrointestinal Reactions:* Single or multiple ulcerations of the esophagus, stomach, duodenum, or small intestine, including perforation and hemorrhage, with fatalities in some instances; rarely, intestinal ulceration has been associated with stenosis and obstruction; gastrointestinal bleeding without obvious ulcer formation; perforation of preexisting sigmoid lesions (diverticulum, carcinoma, etc.); rarely, increased abdominal pain in ulcerative colitis patients or development of ulcerative colitis and regional ileitis; gastritis may persist after the cessation of the drug; nausea, vomiting, anorexia, epigastric distress, abdominal pain, and diarrhea.

*Eye Reactions:* Corneal deposits and retinal disturbances, including those of the macula, have been observed on prolonged therapy; blurring of vision.

*Hepatic Reactions:* Rarely, toxic hepatitis and jaundice, including some fatal cases.

*Hematologic Reactions:* Aplastic anemia, hemolytic anemia, bone marrow depression, agranulocytosis, leukopenia, and thrombocytopenic purpura may occur rarely. Since some patients manifest anemia secondary to obvious or occult gastrointestinal bleeding, appropriate blood determinations are recommended.

*Hypersensitivity Reactions:* Acute respiratory distress, a rapid fall in blood pressure resembling a shock-like state, angioedema, dyspnea, asthma, angitis, pruritus, urticaria, skin rashes, purpura.

*Ear Reactions:* Hearing disturbances—deafness reported rarely; tinnitus.

*Central Nervous System Reactions:* Psychic disturbances including psychotic episodes, depersonalization, depression, and mental confusion; coma; convulsions; peripheral neuropathy; drowsiness; lightheadedness; dizziness; syncope; headache.

*Cardiovascular-Renal Reactions:* Edema, elevation of blood pressure, hematuria.

*Dermatologic Reactions:* Loss of hair, erythema nodosum.

*Miscellaneous:* Rarely, vaginal bleeding, hyperglycemia, glycosuria, ulcerative stomatitis, and epistaxis.

**Supplied:** Capsules containing 25 mg indomethacin each, in single-unit packages of 100 and bottles of 100 and 1000; capsules containing 50 mg indomethacin each, in single-unit packages of 100 and bottles of 100.

For more detailed information, consult your MSD representative or see full prescribing information. Merck Sharp & Dohme, Division of Merck & Co., Inc., West Point, Pa. 19486



## His Voice Was Heard...



WILLIAM T. WRIGHT, M.D.

I wish each of you could have heard Dr. Palmer's Inaugural Address at the AMA in Dallas last month. Dr. Palmer is a dynamic speaker who conveys the new, more militant position of the AMA in a very forceful way. I feel he is an excellent leader who will represent us well this year.

It is difficult for me to understand how some physicians do not belong to Organized Medicine for one reason or another. Some say AMA does not represent them and their thinking. My answer to those individuals is, if you do not like the system of Organized Medicine and the position it takes on various matters in your behalf, stay in, become more active, and make your position heard. I do not agree with Organized Medicine on every issue; neither do I agree with every one of my personal decisions as I look back on them, but I believe the AMA is trying to represent each of us in the best possible way it can.

It was my good fortune to be seated next to a senior medical student during a meeting of Reference Committee E. He, at one point, whispered and asked me if it was permissible for him to say something. I explained that by holding up his hand and wanting to be recognized, he would have the pleasure of the floor. His comments were favorably received and everyone was very attentive to his ideas. The Reference Committee agreed with him. His thoughts were conveyed to the House of Delegates two days later where this same medical student listened to favorable action being taken on this issue.

Now, I ask you, isn't this an example of democratic action on an issue facing Organized Medicine? I believe most people who do not belong to Organized Medicine simply do not want to spend the money to do their part and use the "they do not represent me" reason as an excuse to ease their conscience.

The scientific and commercial exhibits were good. I attended one post-graduate course on Cardio-pulmonary resuscitation which was very well presented and attended.

Each morning the Alabama Delegates, Alternate Delegates, President, President-Elect, Chairman of the Board of Censors, resident representative of Alabama and staff men met for breakfast. We discussed the issues facing us for that day's meeting, and interviewed various candidates who were seeking AMA office where we probed their thoughts and positions on various issues. This allowed us to more fully understand the candidates and to allow our Delegates to decide who would best serve the federation.

I hope each of you will make your thoughts and actions heard loud and clear through the voice of Organized Medicine in these difficult times we are facing with malpractice insurance problems and government intervention.

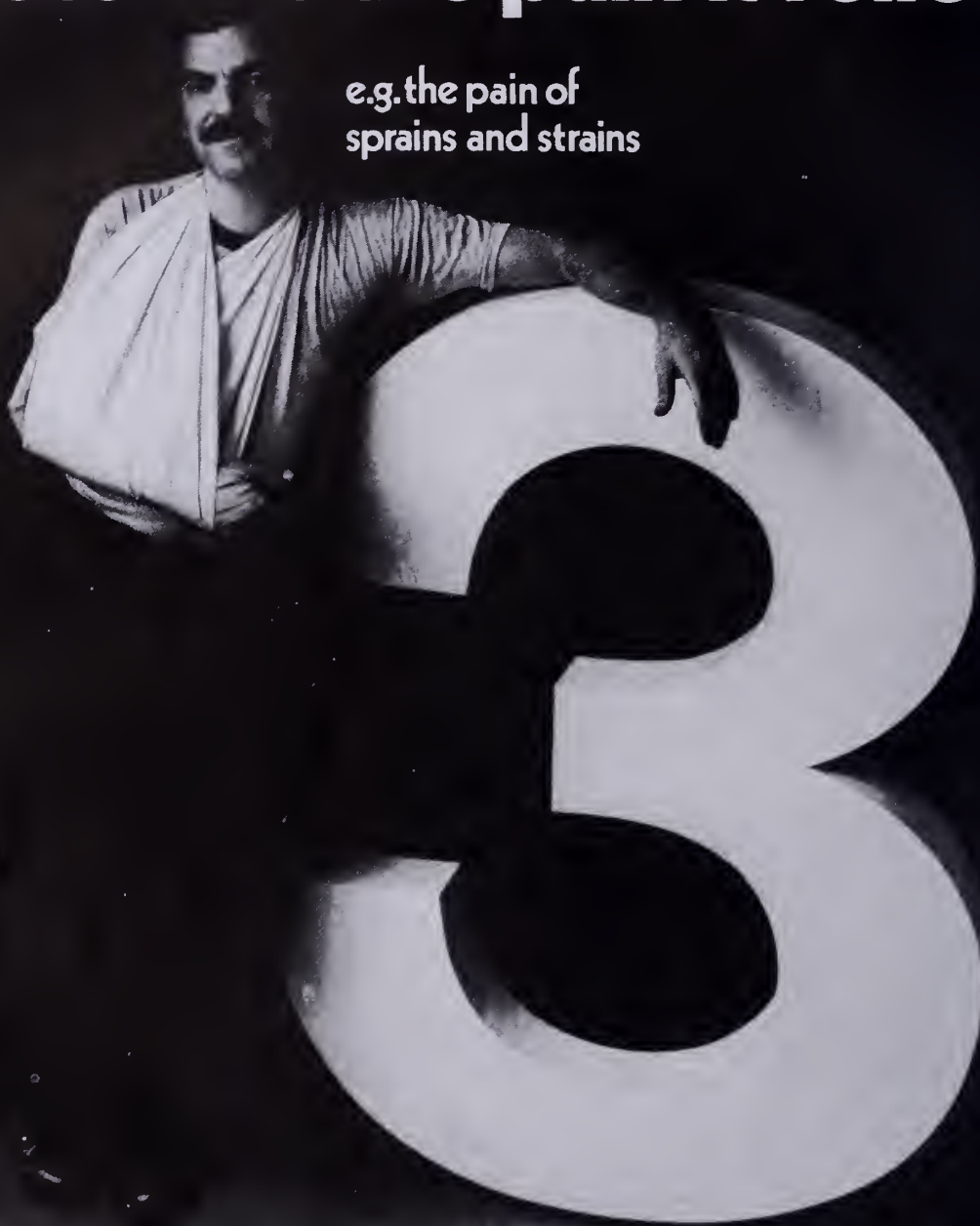
Make your plans now to attend the next MASA Annual Meeting and the next AMA meeting.

*Bill*

# No. 3

## As potent as the pain it relieves.

e.g. the pain of  
sprains and strains



### NOT TOO LITTLE

- as potent as the pain you need to relieve in patients with fractures, sprains, strains, wounds, contusions, and the pain of surgical convalescence
- unlike acetaminophen/codeine combinations, it does not sacrifice anti-inflammatory action

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codeine phosphate\* (32.4 mg) gr ½

Each tablet also contains aspirin gr 3½, phenacetin gr 2½, caffeine gr ¼. \*Warning—may be habit-forming



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# editorials

# editorials

## Legal Tool To Ease Malpractice Costs

Now comes word that a suburban Chicago radiologist has been awarded \$8,000 damages in his countersuit against a patient who charged him with negligence in failing to diagnose a small fracture of the little finger.

The jury deliberated only 15 minutes before reaching the verdict, finding the patient, her attorneys and her husband guilty of willful and wanton misconduct in filing a frivolous malpractice lawsuit against the physician.

In the July, 1976, issue of the *ACR Bulletin* (American College of Radiology), the editors praise the physician for his "determination, courage and personal commitment in waging the battle." The editors continue by encouraging others to be inspired by his victory in an effort to "fight back" as a means of curtailing nuisance and non-meritorious suits.

The unexpected turnabout of a malpractice suit against a physician would certainly curtail the habit of plaintiff-attorneys suing "everybody in sight" and would be an important legal tool in easing the growing problem of medical malpractice costs. Attorneys tempted to file malpractice suits for trivial reasons would certainly be more cautious, taking careful note of this case and others as they are reported.

The point that must be seriously emphasized, however, is that when counterattack is being considered, determination must be made whether or not malice can be proven as the basis for patient's suit. The patient could be negligent in the filing of his suit or even honestly mistaken in his intentions. But these alone do not constitute malice or willful and wanton misconduct, bases upon which the physician could counterattack. Without consideration of these points, a flurry of countersuits could in all probability be placed before our courts in as many numbers as malpractice suits are filed.

Lawyers will certainly take note of the success of several countersuits as reported in recent months, and they will remain apprised of the message intended: medical malpractice cases must be investigated more carefully before they are filed.

In the final analysis, it would seem to us that the physician is not out to sue his patients and collect damages, but rather to ward off the nagging experience of a frivolous attack, freeing him from constant worry and returning him to better things at hand, namely, attention to his patients.

## The Power Within

Just about every aspect of our lives—and, increasingly, the physician's professional life—is being invaded and pervaded by a government within the federal government.

In many respects, this inner government enjoys so much autonomy that it stands outside—as well as within—the government as conceived by the Founding Fathers, though officially it is a part of the Executive branch.

We refer to the regulatory agencies, which have been multiplying at the rate of more than one a year over the past decade.

Their power over the people is in inverse relationship to their public accountability. Unlike members of Congress and the President, their leaders are not elected at the polls. Unlike the federal judiciary, they offer no uniform route of appeal from their decrees.

Although the agency heads are appointed by the President and confirmed by Congress, the actual regulations are likely to be prepared by anonymous civil servants. In addition to being executive arms, the agencies are also powerful legislators and even judges.

Last year the regulatory logbook—the *Federal Register*—carried 60,221 pages of single spaced fine print, a "gain" of some 14,000 pages over 1974. Those hillocks of paper are virtually as much law as any act of Congress.

Why have the agencies gained such a vast amount of law-making power?

One reason is that Congress—in its crush of work—enacts loose, pliant legislation that the regulators can mold like putty. Another reason is the Administration Procedure Act, whose ground rules for the agencies are amenable to being either over-utilized or evaded, whichever suits the fancy and ambition of the regulator.

Over-regulation has been getting plenty of apprehensive attention lately—from the media, the business world, the White House, and also in the Congress that enabled the power to grow as it has. The American Enterprise Institute for Public Policy Research has just announced the establishment of a research center, with a blue-ribbon advisory council, to study government regulation.

But the first general need is to get the Administration Procedure Act amended, so that the regulators will have to pay more respect to orderly and orthodox government processes and to the regulated.

Bills to strengthen the process of citizen input into new regulations are receiving attention in both houses of Congress. In the House of Representatives, a bill (HR 12048) sponsored by Rep. Walter Flowers of Alabama is ready for floor action.

Physicians are acutely aware of the impact of unrealistic regulations on the quality of medical care under federal programs. The Flowers' bill and others represent a real hope for improving the regulation-writing process.

## Family Budgets Squeezed Again

The table on the following page provides a picture of what has happened to a family's income, spending, taxes and medical care costs in the last five years.

For the BLS "intermediate family," medical care costs were \$258 higher in 1975 than they were in 1970, a rise of 45.7%. The medical care component of this table includes

## EDITORIALS CONTINUED FROM PAGE 13

the costs of hospital and surgical insurance plus out-of-pocket costs for physician care, dental care and eye care, and prescription drugs.

The "intermediate family" spent 6.5% of after tax income on medical care in 1970, 6.6% of after tax income in 1975.

### Intermediate Family Budgets

Source: Bureau of Labor Statistics, family of four assumed to have identical purchases of goods and services in 1970 and 1975.

	1970	1975	\$ change	% change
Family budget				
Before taxes	\$10,664	\$15,318	+\$4,654	+ 43.6%
After taxes	8,744	12,427	3,684	42.1
Spent for...				
Food	2,452	3,827	1,375	56.1
Housing	2,501	3,533	1,032	41.3
Transportation	912	1,279	367	40.2
Clothing,	1,137	1,433	296	26.0
personal care				
Other spending	639	831	192	30.0
Charity, life ins., etc.	539	701	162	30.1
Taxes, etc.				
Social Security	387	834	447	115.5
Income taxes	1,533	2,057	524	34.2
Medical care	564	822	258	45.7



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**Description:** Each Anusol-HC Suppository contains hydrocortisone acetate, 10.0 mg; bismuth subgallate, 2.25%; bismuth resorcin compound, 1.75%; benzyl benzoate, 1.2%; Peruvian Balsam, 1.8%; zinc oxide, 11.0%; also contains the following inactive ingredients: t:smuth subiodide, calcium phosphate, and coloring in a bland hydrogenated oil-cocoa butter base.

Each gram of Anusol-HC Cream contains hydrocortisone acetate, 5.0 mg; bismuth subgallate, 22.5 mg; bismuth resorcin compound, 17.5 mg; benzyl benzoate, 12.0 mg; Peruvian Balsam, 18.0 mg; zinc oxide, 110.0 mg; also contains the following inactive ingredients: propylene glycol, bismuth subiodide, propylparaben, methylparaben, polysorbate 60, sorbitan monostearate in a water-miscible base of mineral oil and glyceryl monostearate. Non-staining.

**Indications:** Anusol-HC is adjunctive therapy for the symptomatic relief of pain and discomfort in: external and internal hemorrhoids, proctitis, papillitis, cryptitis and fissures, incomplete fistulas, and relief of local pain following anorectal surgery.

Anusol-HC is especially indicated when inflammation is present. When acute symptoms subside, most patients can be maintained on regular Anusol<sup>®</sup> Suppositories or Ointment.


**Contraindications:** History of sensitivity to any component. Topical corticosteroids should not be employed in tuberculous, fungal and most viral lesions of the skin (including herpes, vaccinia and varicella).

**Warnings:** The safe use of topical steroids during pregnancy has not been fully established. Therefore, during pregnancy they should not be used unnecessarily on extended areas, in large amounts or for prolonged periods of time.

**Precautions:** Symptomatic relief should not delay definitive diagnoses or treatment. When there is bacterial skin infection, topical corticosteroids should be used only with appropriate concomitant antimicrobial therapy. Prolonged or excessive use of corticosteroids might produce systemic effects.

**Dosage and Administration:** Anusol-HC Suppositories: Remove foil wrapper and insert into the anus. One suppository in the morning and one at bedtime, for 3 to 6 days or until inflammation subsides. Then maintain patient comfort with regular Anusol.


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Artist's interpretation in bas-relief of  
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wounds and anal dermatitis.



**RECENT CHANGES**

**federal register**

**Providing  
Drug Information  
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**Informational  
Bulletin #433-76**

**National  
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bulletin**

**Health care doesn't  
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**Drug firms challenge  
'MAC' rules**

**Drug  
Substitution**

**The Common Sense  
of Health Progress  
RESEARCH**

**Mailgram**



# THERE ARE A LOT OF PEOPLE GETTING BETWEEN YOU AND YOUR PATIENT.

Medicine today is in the spotlight, subjected to all kinds of scrutiny. Your control over patient therapy is being monitored, judged and occasionally abrogated, sometimes by unknown third parties.

The worry is that in the wake of this focus, the relationship between you and your patient will be weakened, without offsetting benefits. Consider three examples:

**Drug substitution** In most states, pharmacy laws, regulations or professional custom stipulate that your non-generic prescriptions be filled with the precise products you prescribe. But in the last five years, a dozen or more State laws have been changed, permitting the pharmacist in most cases to select a product of the same generic drug to fill any prescription.

Ironically, this dilution of physician control has taken place against a background of growing evidence that purportedly equivalent drug products may be inequivalent, since neither present drug standards nor their enforcement are optimal. In fact, the FDA itself says it has not enforced the same standards for hundreds of "follow-on" products that it had applied to the original NDA approvals. Thus physician control over patient therapy is being eroded with a risk that patients may be exposed to drugs of uncertain quality.

The major advertised claim for substitution is reduced prescription prices for consumers. Yet no documentation of any significant savings has been produced.

**MAC** Maximum Allowable Cost, MAC for short, is a Federal regulation designed to cut the Government's drug bill by setting price ceilings for drugs dispensed to Medicare and Medicaid patients. Unless the prescriber certifies on the prescription that a particular product is medically necessary, the Government intends to pay only for the cost of the lowest-priced, purportedly-equivalent,

generally-available product. The effect of the program may be that elderly and indigent patients will be restricted to products which someone in Washington believes are priced right. Practicing doctors will have little to say about administration of the program, since Government will have absolute authority to make its choices stick.

**The drug lag** The future of drug and device research depends upon a scientific and regulatory environment that encourages therapeutic innovations. The American pharmaceutical industry annually is spending more than \$1 billion of its own funds and evaluating more than 1,200 investigational compounds in clinical research. Disease targets include cancer, atherosclerosis, viruses and central nervous system disorders, among others. But there is a major barrier to the flow of new drugs to your patients: The cost of the research is more than ten times what it was, per product, in 1962; and whereas governmental clearance of new drug applications took six months then, it commonly consumes two years now.

The FDA needs adequate time, of course, to consider data. But it is equally clear that the present approval process contributes to needless delay of needed therapy. That's why the increased efficiency of the drug approval process is vital to all our futures.

If these issues concern you, we suggest that you make your voice heard—among your colleagues and your representatives in State legislatures and in Washington.

It could make a difference in your practice tomorrow.



Pharmaceutical Manufacturers Association  
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## HILL CREST HOSPITAL — For Intensive Treatment of Psychiatric Disorders

This 113-bed non-governmental psychiatric hospital provides modern facilities for diagnosis and treatment of patients with all degrees of illness, including those who show severely disturbed behavior. Alcoholic and drug abuse patients are also accepted.

In addition to care by psychiatrists and by consultants in all medical specialties, the treatment program includes occupational, recreational, and physical therapy, social services, and tutoring. Emphasis is on short-term, intensive treatment of voluntary patients.

Hill Crest is a member of: American Hospital Association, National Association of Private Psychiatric Hospitals, Alabama Hospital Association, Birmingham Regional Hospital Council.

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# Letters to the Editor

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## Heimlich Poster

Dr. George W. Newburn, Jr., Health Officer, has asked me to inquire about the availability of Heimlich posters. If these posters are available, please send at least 50 copies for me to distribute. If, however, posters in bulk amounts are not available we hereby request permission to reproduce them here at the Health Department for distribution to the public.

Thank you and I look forward to hearing from you at your earliest convenience.

(Miss) Monica M. Zieman, M.P.H.

Director, Division of Health Education

and Public Relations

Mobile County Board of Health

Mobile, Alabama

In reference to the article on Heimlich Posters in *The Alabama M.D.*, Vol. 11, No. 28 dated July 1, 1976, we would like to request ten posters for use in our dining rooms. Thank you.

W. D. Matthews

Asst. to Chief of Staff

Veterans Administration Hospital

Tuscaloosa, Alabama

Please send us a copy of the Heimlich Poster for use in our waiting room. Thank you.

H. Joseph Hughes, M.D.

Norwood Internal Medicine Associates, P.A.

Birmingham, Alabama

According to the 1 July 76 issue of *The Alabama M.D.*, I learned you now have available the Heimlich Poster for distribution.

I have need of at least 1/2 dozen posters for display at the most important eating places on this depot which employs over 4,000 men.

Harold R. Langdon, M.D.

Medical Director

Department of the Army

Anniston, Alabama

We understand that the Association has posters available detailing the administration of the "Heimlich Maneuver." Could you please advise us as soon as possible where we might obtain 200 to 300 of these posters for distribution in all our Pasquale's outlets. We would very much appreciate receiving the correct department and address to contact concerning these posters.

Yours very truly,

Mary Ann Fulks

Legal Department

Pasquale's

Birmingham, Alabama

Would you please send me three of your posters illustrating the "Heimlich Maneuver" method of ejecting lodged particles from a person's throat. We would like to post these in our lunch rooms. Thank you.

N. E. Grede,

Safety and Security Supervisor

Revere Copper And Brass Incorporated

Scottsboro Aluminum Sheet Division

Scottsboro, Alabama

Please send two posters illustrating the "Heimlich Maneuver," method of ejecting lodged particles from victims throat.

We will ask one of our local doctors to demonstrate the maneuver at our Nursing Association meeting.

I thank you.

Margaret Barron, L.P.N.

Chapter President No. 21

311 Montgomery Street

Troy, Alabama

We are interested in receiving copies of the Heimlich Poster. Could you please tell us how we may obtain these. Thank you for your assistance.

(Mrs.) Ginger Woodard

Administrative Secretary

Holy Name of Jesus Hospital

Gadsden, Alabama

## Hypertension Success

On behalf of the Alabama Advisory and Coordinating Council on Hypertension, I would like to thank MASA members and staff for their personal contributions toward making High Blood Pressure Month 1976 a success.

If more people like you would take an active role in educating the public about hypertension, thousands of people could live longer and healthier lives.

Again, hearty thanks for your participation and contribution.

"Sparky" Adams

Alabama Advisory and Coordinating

Council on Hypertension

Montgomery, Alabama

## "Beacon Lights In Alabama"

I'm writing in answer to your letter of June 7th directed to Dr. Zollinger requesting permission to reprint the paper "Beacon Lights In Alabama" by Dr. L. L. Hill from a 1931 issue of *The American Journal Of Surgery*.

Although as a matter of policy we do not allow reprinting of any papers from our journals, Dr. Zollinger

## LETTERS

CONTINUED FROM PAGE 19

and I agree that an exception should be made in this case. You have our permission to reprint this in your magazine.

I would appreciate receiving a copy. We are pleased to be of help.

Cordially,

Louis F. Le Jacq, Publisher  
The Yorke Medical Journals  
666 Fifth Avenue  
New York, N.Y.

*ED. NOTE. The article "Beacon Lights in Alabama" by the late Dr. Hill will appear in the September, 1976 issue of the JOURNAL.*

### Family Appreciation

Mere words are indeed inadequate to express the great appreciation and gratitude the children have for the comprehensive and splendid biographical sketch of our father, the late Dr. E. L. Hill, in the *Journal of the Medical Association of the State of Alabama* (June, 1976, Vol. 45, No. 12).

During the years of his life and since his death, many tributes have been paid my father, but the article written by Mr. Stallings with its depth of knowledge, understanding and true history of the man could not be surpassed.

From a heart pierced not by a knife but with an indescribable joy, I send my thanks.

Most sincerely,  
Amelie Hill Laslie  
Montgomery, Alabama ■



## HIGHLIGHTS OF AMERICAN MEDICINE

### American Doctor Leads Victory Over Pellagra

FOR several centuries pellagra was a serious disease that baffled doctors. Physicians called it the disease of the Four Ds — dermatitis, diarrhea, dementia, and finally death.

In the early years of the 20th century, pellagra was found in more than half of the states of the United States and was killing thousands of persons each year in the South. Mental hospitals were filled with emotionally disturbed individuals whose problem was pellagra.

The story of how medical science finally traced the cause of pellagra — a deficiency of niacin, or nicotinic acid, in the vitamin B complex — is a medical detective story that has excited historians for years.

The Sherlock Holmes of pellagra is a medical officer of the U. S. Public Health Service, Dr. Joseph Goldberger. Dr. Goldberger is now honored by an award presented each year in his name for outstanding work in nutrition.

DR. GOLDBERGER already had made a distinguished record in infectious disease research when, in 1914, he received the assignment to tackle pellagra.

Already it was known that individuals who ate a diet of largely corn were most likely to succumb, but there were many theories and much difference of opinion among medical scientists.

Dr. Goldberger began his research with studies in a mental hospital in Georgia and an orphanage in Mississippi. He noted that while the people in these institutions got pellagra, the attendants caring for them did not. He thus concluded it was not an infectious disease, and began to explore dietary causes.

Pellagra developed in people who had biscuits, hominy grits, corn mush, syrup, molasses, gravy, and sowbelly (fat pork) in their diet, but no milk, eggs, butter or lean meat. He learned early in his work that some simple diet change could clear up the disease in the institutions. To further test the diet theory, he conducted an experiment in a prison in which volunteers subsisted for six months on the traditional diet of the poor Southerners. They developed the disease but Dr. Goldberger still faced disbelief among his colleagues, and more years elapsed before the theory was accepted.

THE REMAINDER of his life was spent in trying to track down exactly which missing element in the diet caused the disease. Slowly, minerals and most vitamins were excluded, and shortly before his death in 1928 he concluded that the essential probably was in the vitamin B complex. Although Dr. Goldberger did not live long enough to determine finally that niacin was the missing element, his research was such that doctors knew how to cure pellagra by diet even before the element was finally pinpointed. ■

Prepared by the AMA

# Craniotomy: A Historical Notation

By RONALD D. GREENWOOD, M.D.\*

Destructive operations are almost never performed in obstetrics today. However, only a century ago procedures such as craniotomy or decapitation were used even on living babies in some circumstances. Dr. Webb, a practitioner in North Mt. Pleasant, Mississippi, reported in 1866 the use of such maneuvers. He felt that the observations of practitioners "either in thickly populated towns or in the country" were important and should be noted as well as the cases in hospitals which were the ones more frequently discussed.

*"On the fifteenth of February, 1866, I was called by Dr. Jarrett to see Mrs. T., a delicate nervous female about 36-years old in her first labor at term. I was informed that light parturient efforts had begun early in the morning, and the pains had gradually increased in frequency and intensity until about 10 o'clock a.m., at which time she was seized with strong convulsions. Since then, as at 5 o'clock p.m., the hour of my first seeing her, the convulsions returned at each successive pain. During the intervals she tossed herself about uttering incoherent sentences, had a quick and irritable pulse, surface cold and moist....presentation vertex, left of Prof. Meigs, low down; pains frequent, but occasioning no advancement.*

*Dr. Jarrett had bled her and attempted to apply the forceps before I reached the house. Her condition and temperament forbid further resort to blood letting and it was deemed best not to attempt again the forceps. We were convinced by the increased frequency of the pains and stertorous breathing that the labor must be terminated very soon or the patient would inevitably die. We concluded to institute craniotomy."*

There were no instruments available to Dr. Webb, so he had to proceed with the treatment.

*"There was a dental chest in the house, and from the many curiously shaped instruments it contained, I selected one resembling a small chisel with which I made an opening in the cranium of the child. I enlarged the opening with a pair of scissors, and removed as much of the brain as possible, occasioning a very considerable reduction of the head, and then using in the place of a hook, my fore and middle fingers placed under the projection of the petrous portion of the temporal bone, succeeded in effecting a speedy delivery.*

*After the delivery, the convulsions continued to recur at gradually lengthened intervals, until 10 o'clock the subsequent day when they ceased. We used such medications as every practitioner is familiar with, as proper in such a contingency. She had a quick recovery.*

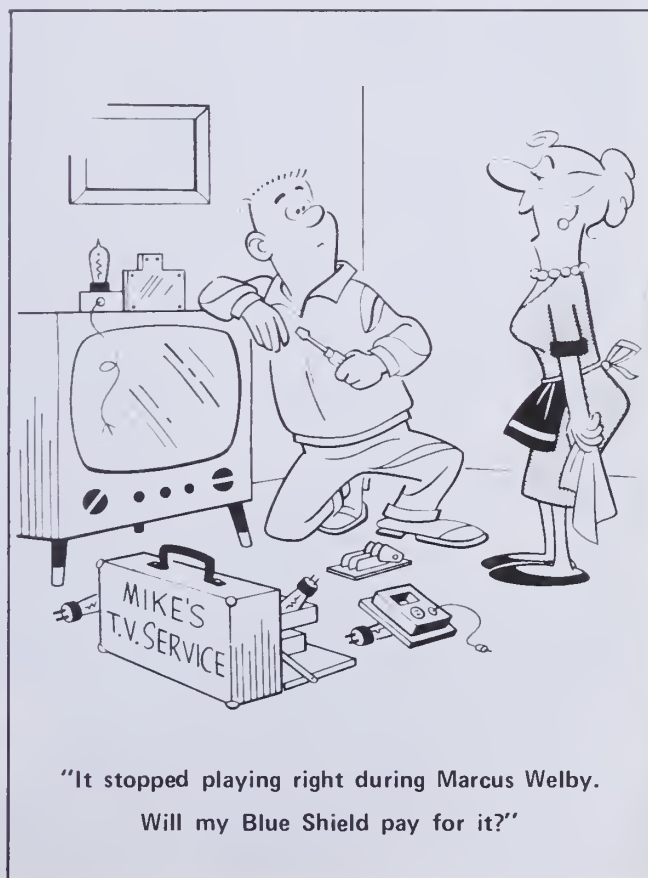
*We were satisfied before we began the operation, that the fetal life was gone; but we did not perform craniotomy because the child was dead, but because the mother's life*

*was in danger, and the delivery could not be completed by other means less safe to her."*

This case exemplifies certain complications which had to be met by the lone practitioner in the 1860s. Although the details are lacking, the mother probably had cephalopelvic disproportion and eclampsia. Cesarean section or craniotomy with proper equipment were neither possible. The procedure craniotomy was still in use at the turn of the century; for instance, in 1893, there were over 2500 births at the Lying In Hospital of the City of New York and two of these deliveries included craniotomy. ■

Webb, A.: Craniotomy and Eviscerotomy. Medical and Surgical Monthly 1;138-140,1866.  
Medical Report of the Society of the Lying In Hospital of the City of New York, 1893., New York, M.B. Brown, 1894, p. 22.

\*Children's Hospital Medical Center, 300 Longwood Ave., Boston, Mass. 02115.





**One contains aspirin.  
One doesn't.**



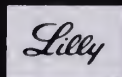
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# Comments On The Management Of Hypertension—1976

Charles H. Pierce, M.D., Ph.D.\*

## INTRODUCTION

Hypertension is an enigma of our time. On the one hand, it is insidious in onset and often painless and yet it is devastatingly destructive. The first clinical manifestations may, in fact, be a stroke or congestive heart failure or a dissecting aneurysm or a myocardial infarction or sudden death.

Clearly, high blood pressure is an important risk factor in strokes and heart disease and yet this fact has not been fully realized by either the public or the physician. From the data available up to one half of the estimated 23 million hypertensive Americans do not know that they have an elevated blood pressure. Then, of the half who do know their blood pressure is high only half of these are being treated at all and only one quarter are being adequately treated. This is an unenviable track record for a condition which is one of the easiest in medicine to diagnose and for which *effective drug therapy is available*.

The comments will be arbitrarily separated into three areas: Evaluation and Diagnosis, Management, and Follow-up.

## I. EVALUATION AND DIAGNOSIS

Although very simple in that the office or clinic measurement of blood pressure is not difficult, it is important to clearly and repeatedly establish the presence of an elevated blood pressure, as the therapy and life-style changes which follow the decision to treat are long-term. They may be life-long for many.

It is now believed to be appropriate to limit the pretreatment workup to defining the severity of the hypertension and to identifying any of its complications. Complex diagnostic procedures designed to discover specific causes of hypertension, such as pheochromocytoma and renovascular disease, can reasonably be reserved for those patients in whom relatively simple drug therapy, as subsequently outlined, proves inadequate or unsatisfactory or in whom routine history, physical examination or abbreviated laboratory studies suggest one of the specific recognizable causes of hypertension.

### Initial Examination and History

**(1) Blood pressures**—It is recommended that the blood pressure be determined on more than one occasion and that what is recorded on any one visit is the average of at least two determinations each of the casual (sitting), supine (basal) and erect pressures. The supine pressures are taken after a 15 minute rest in a constant and restful environment and the erect pressures are taken within 2 minutes after the patient assumes a standing position. The value of several determinations, however taken, is the confidence that you gain that what you record is real.

**(2) History**—The historical data required for the routine pretreatment evaluation of hypertension and its complications should consist of: any previous history of hypertension and its treatment; the presence of or family history of cardiac or renal disease; the presence of or family history of stroke, transient ischemic episodes or other cardiovascular risk factors, including diabetes, cigarette smoking or lipid abnormalities; a family history of hypertension or its complications; and the patient's last normal recorded blood pressure.

**(3) Physical Examination**—In addition to several measurements of the blood pressure, the pretreatment physical examination should include: height and weight; fundoscopic examination of the eyes for hemorrhages, exudates, papilledema and arteriolar spasm, both localized and general; examination of the neck for bruits and distended veins; auscultation of the lungs for signs of cardiac failure; examination of the heart for increased size, precordial heave, murmurs, arrhythmias and gallops; examination of the abdomen and flanks for bruits, masses and tenderness; and examination of the extremities for pulses, and neurological deficits associated with stroke.

While in the past the history taking and physical examination have been the exclusive province of the physician, there is increasing acceptance of having other specially trained personnel (i.e. nurse practitioner or other allied health personnel) carry out these procedures, obtain predetermined laboratory tests and report the findings to the responsible physician.

**(4) Base-line Data**—This information will naturally vary with local and personal resources. It may reasonably be separated into two groups; *Recommended* tests which aid in either determining end organ damage or following the side effects of therapy and upon which therapeutic decisions are made; *Adjunctive* tests which are additional assessments the usual risk factors of arteriosclerotic cardiovascular disease and upon which adjunctive therapy but usually not anti-hypertensive therapy decisions are made.

The recommended data include samples of blood, plasma or serum for urea nitrogen or creatinine, potassium, glucose (fasting), and uric acid; urine for gross, microscopic and chemical (protein, hemoglobin, sugar) analysis and a 24 hour urine for sodium and potassium, and assessment of the

---

\*Asst. Professor, Dept. of Pharmacology, University of South Alabama Programs in Hypertension at the V.A. Ambulatory Care Clinic of the University of South Alabama Medical Center and the Franklin Memorial Clinic of Mobile, Alabama.

Prepared for the Alabama Advisory and Coordinating Council on Hypertension. December, 1975.



heart by ECG (resting) and Chest X-ray. Some would include a stimulated renin in this group also. The adjunctive data include blood, plasma or serum for triglycerides, cholesterol, and SMA-12 type data.

### Assessment of Risks

It is recommended that every patient should be assessed individually and the decision to commence therapy be made from no one piece of data except perhaps the blood pressure. In this regard, efforts have been made to quantitate the "Risks" to make more objective the decision to treat.

One approach is to assign a number to the major factors which have been shown to place a person with a diastolic pressure greater than 90 at greater risk of developing progressive disease and/or a major complication (stroke, dissecting aneurysm etc.). One system which has been proposed is the following:

Score	Risk Factor
1	age less than 45
1	sex-male
1	race-black
1	target organ damage ie. heart, fundi, kidneys)
1	parent with a major complication of hypertension
0	diastolic pressures 90-94
1	diastolic pressures 95-99
2	diastolic pressures 100-104
3	diastolic pressures greater than 104

The purpose of this system is to put some objectivity into the decision to treat. A score of 3 or greater in a patient with a basal diastolic pressure of 90 mmHg would be treated. Such a system would be applied to those persons with a repeated diastolic pressure of 90 or greater.

Once the diagnosis has been made, and the patient has been evaluated with respect to his present physical, biochemical, and risk factor status the management process begins.

## II. MANAGEMENT

The goal of management is to obtain and maintain a diastolic pressure less than 90 mm Hg with as few adverse effects as possible. On paper this should be almost as easy as making the diagnosis as there are available a large number of pharmacologically active agents which can be employed to lower pressure.

It turns out, however, that the problem isn't the lack of effective drugs but rather it is one of errors in management. It has not been easy for physicians to look upon high blood pressure as being as important as it is in the epidemiology of so many disabling cardiovascular entities.

It has also not been easy for physicians to learn that their patients don't follow advice or take prescribed medicines unless they are really sold on the consequences of inadequate, sporadic or no therapy. To do this requires getting into the lives of their patients much like they involve themselves with the diabetic. This is necessary if they have any plans of altering a life-style or promoting good adherence to any therapeutic regimen.

In recommending a plan for the management of Hypertension, I depart from the usual plans which give flow diagrams for screening and treatment and which separate, even arbitrarily, patients into groups on the basis of their blood pressure. Surely nothing is to be gained by grouping and subgrouping now that it has been demonstrated that a large majority of patients benefit from natriuretic agents\* first and that even dangerously high diastolic pressures ( $> 140$  mm Hg) may be lowered to less than 90 mm Hg with only these agents and diet changes.

### Guidelines for the Management of Hypertension

(1) **Thoughtful patient Education.** It has now been well documented that an effort expended in education and counseling increases adherence not only to your therapeutic regimen (pill taking), but also life-style changes such as weight reduction or dietary salt reduction. The major points about hypertension and its management which should be presented to patients include the following:

- Hypertension has no reliable symptoms and in many may have no symptoms, but this does not mean that it is less serious than a disease which has a symptom (usually pain) which brings the patient to the doctor.
- The rationale for long term therapy with agents which may make the patient feel worse (at least temporarily) and in the absence of symptoms must be carefully explained. The explanation should include the adverse effects of a high pressure on the brain, heart and kidneys.
- The importance of the role of excess salt (sodium) intake in the pathogenesis or exacerbation of hypertension should be discussed as preamble to the importance of reducing their intake of sodium as a way of life. Emphasis placed on the marked differences between fresh and canned foods as to sodium content is as rewarding as convincing patients to reduce or eliminate table salt.
- Include the patient in your thought processes by discussing laboratory data and showing him the progression of his blood pressure to the goal pressure. A graph kept in the chart with the goal clearly indicated has been shown to be most helpful in getting patients to adhere to the drug therapy and return for follow-up visits.

(2) **Commence therapy with a natriuretic.** It can be recommended from good hard data that natriuretics are the cornerstone or first-line agents for the treatment (lowering) of high blood pressure. There are a wide variety of these agents (see Figure 1) and they are all thought to have a similar antihypertensive effect when given in "equivalent" diuretic doses. It is recommended, however, that practicing physicians use and become familiar with one or two rather than try to use them all.

The rationale for the use of these agents as initial and background therapy is the following:

- Sodium loss is promoted. Measurements have demonstrated that they cause a negative salt and water balance and lower total body exchangeable sodium.

\*The term natriuretic is preferred over "diuretic" or "thiazide" for the following reasons:

- (1) these agents are given for their ability to lower intracellular sodium and not for their diuretic action, and
- (2) they are not all thiazides.

- Both supine and erect as well as both systolic and diastolic pressures are lowered. The anticipated reduction in pressure will vary depending on the starting point but it is not unusual to reach goal pressure from as high as 150 mm Hg diastolic.
- The antihypertensive action of these agents is prolonged compared to their serum half-life. After stopping therapy with hydrochlorothiazide (t 1/2 = 6 hours) or chlorthalidone (t 1/2 = 50 hours) it usually takes 6-8 weeks before the pressure returns toward pretherapy levels.
- The effect of all of the added therapeutic agents is enhanced by prior and continued natriuretic therapy.
- The incidence of side effects is very low compared to the other antihypertensives (anti-adrenergics and vasodilators).
- The cost to the patient is low.

It is now reasonable to recommend that *all* patients with an elevated systolic and/or diastolic blood pressure be started on a natriuretic. In general terms, therapy should be initiated with a half-maximal dose (e.g., 50 mg. q.d. for hydrochlorothiazide or chlorthalidone) unless the diastolic pressure is greater than 120 or the patient presents with warning symptoms such as frequent headaches, shortness of breath of cardiac origin, or frequent transient ischemic attacks.

Under these conditions the maximum therapy should be started (e.g., 100 mg. q.d. for hydrochlorothiazide or chlorthalidone). The therapy should be prescribed for once a day (AM or PM) regimen and should be accompanied by a program of weight reduction (if indicated) and dietary sodium reduction. It is now known that a majority of persons with hypertension—even some persons with a diastolic pressure as high as 140-150—will become normotensive on this regimen together with measures to promote patients acceptance of therapy, such as those outlined above.

The duration of therapy on half-maximal or maximal doses before going to the next step (maximal dose or added drug, respectively) should be at least one month and ideally two months.

**(3) If control of blood pressure is not adequate with natriuretics and salt reduction, add a second drug.**—There are a number of factors which are considered when the decision is made to add a second drug to the therapeutic regimen. The choice of agent, however, seems to be less important than the manner and skill with which they are used. There are some generalities about the second and any subsequent drug which include the following:

- No agents should be used until the effective dosage of natriuretic therapy has been reached (see Figure 1).
- The second agent should probably be an anti-adrenergic drug.
- The dosing schedule should be increased gradually with careful attention directed to expected side effects.
- No change should be made in the dose (at maximum) or frequency (once a day) of the natriuretic base therapy.
- It is becoming apparent that the blood level half-life of these agents is less related to their antihypertensive half-life than has been thought. This keeps therapy simple which, in turn, increases adherence to pill taking.

More specifically, there are some clinical and laboratory

## AGENTS USEFUL IN THE MANAGEMENT OF HYPERTENSION

I) Diuretics	Maximum Effective Dose (mg/day)
Chlorthalidone (Hygroton)	100
Hydrochlorothiazide (Hydrochloril, Hydrox, etc.)	100
Hydroflumethiazide (Dinamint)	100
Benzthiazide (Aquatil, Esidril)	100
Quinethazone (Hydromox)	100
Sertranolone (Aldacton)	100
Polithiazide (Reneseo)	8
Trietharmethiazide (Gahedrin, Niqua)	4
Furosemide (Lasix)	(*)
II) Anti-adrenergics	Dosage Range (mg/day)
Propranolol (Inderal)	160-2,000
Guanethidine (Ismelin)	10-50
Methyldopa (Aldomet)	500-3,000
Clonidine (Catapres)	0.2-1.6
Reserpine (Serpasil, Sandril, etc.)	0.1-0.75
III) Vasodilators	
Hydralazine (Apresoline)	50-300

\* Diuretic and Natriuretic effectiveness increases with dosage beyond reasonable levels - not usually used in the management of hypertension unless complicated by congestive heart failure.

Figure 1

pointers which may be used to facilitate your choice. These include the following:

**Propranolol**—patient with angina, normal or high renin, rapid heart rate, basal lying-standing pressure gradient, absence of asthma or who is likely not to forget twice daily medication.

**Guanethidine**—patient with near goal pressure, a negative lying-standing pressure gradient, and where simple (once a day) therapy is required.

**Methyldopa**—patient not controlled at all well on natriuretics alone, does not require total alert mental faculties in his job and is free from any of the immunopathies.

**Clonidine**—not yet known whether or not there are any specific clues as to who would most or least benefit from this potent agent.

**Reserpine**—patient free from depression, no evidence of gastritis or excess gastric acid and in whom weight gain is not contraindicated.

### Dosing of the added second agent:

**Propranolol**—it is safe to begin with 40-80 mg. q12h and it is safe up to at least 800 mg q12h. (Presently the latter would mean 10 pills twice a day.) The twice-a-day dosing schedule has been recently found effective. It should be pointed out that the FDA has not officially approved propranolol for use as an antihypertensive.

**Guanethidine**—Start with 10 mg q.d. in the AM taken with the natriuretic. Follow lying-standing gradient as a tip-off for orthostatic hypotension which increases in incidence and severity as dosage increases. The long half-life demands 6 weeks before effect at any dosage level is maximal.

**Methyldopa**—It seems that the intracellular effect half-life is sufficiently long so that once-a-day therapy is possible for most patients. Start with 500 mg at bedtime



and increase at 500 mg steps up to 2000 mg, all of which may be given at one time (h.s.).

**Clonidine**—The experience to date suggests that the initial therapy should be 0.1 mg q12h which is changed in 0.1 mg increments up to 0.4 mg q12h. Recently some workers are suggesting that once-a-day therapy is effective.

**Reserpine**—Initial therapy is 0.1 mg q.d. (AM or PM) and is increased to the maximum recommended dose (0.25 mg q.d.) after a full 2 month trial at the lower dose.

There is very little hard data on the use of more than two drugs. The most important factor to keep in mind is interactions between added agents. Expected interactions based on mechanisms of action would seem to preclude the following combinations:

- o Guanethidine with either methyldopa or reserpine.
- o Reserpine with methyldopa.

The combination which has the best results this far (and which is theoretically the most reasonable) is (1) a natriuretic (2) propranolol and (3) hydralazine.

### III. FOLLOW-UP

No program of antihypertensive therapy will be effective or have any impact on the long term health of our patients unless we insure that they will remain under observation and care. This follow-up is important not only to maintain normal blood pressure but to monitor the clinical and laboratory effects of our therapy. The variables which are usually followed are the blood potassium, sugar, uric acid, urea nitrogen. The rationale for following these indices is to make therapeutic decisions based on the results.

#### Laboratory Monitoring of Therapy

(1) **Potassium.** There is now good data which tells us that potassium supplementation should not be routine in all patients placed on natriuretics. The presence of symptoms (muscle weakness, lethargy, concomitant digitalis therapy and impotence) or persistent hypokalemia ( $K = 3.1$  mEq/L) should cause you to consider supplementation or the use of a potassium sparing natriuretic such as spironolactone (Aldactone) or triamterene (Dyrenium). Keep in mind, however, that triamterene is not as effective in lowering blood pressure as spironolactone so should be added to maximal natriuretic therapy.

(2) **Blood sugar.** Natriuretics cause an elevation in blood sugar which may expose a latent chemical diabetes and which may require diabetic type dietary management for control. In keeping with a simple therapy, it is convenient to start with chlorpropamide (Diabinese) 100 mg q.d. in the morning with the natriuretic if you elect to use oral hypoglycemics.

(3) **Uric acid.** Natriuretics usually cause an elevation in blood uric acid, however the incidence of gout is quite rare. It is reasonable to commence preventative therapy with allopurinol (Zyloprim) 100 mg q.d. when the uric acid exceeds 10 mg/100 ml.

(4) **Blood urea nitrogen.** Natriuretics also elevate the BUN and creatinine but we have no agents to lower these per se. They are followed as mirrors of compromised renal function. In the presence of renal insufficiency the choice of natriuretic is usually spironolactone (early) or furosemide (late) and the second drug is usually propranolol especially if a high renin is suspected or found. ■

## UAB Research Focuses On Safety Of "Pill"

SINCE it first appeared on pharmacists' shelves 15 years ago, the "pill" has been acclaimed as one of the surest and easiest methods of birth control, yet doubt continues to surround the safety of oral contraceptives.

"Much of the concern," says Dr. Charles E. Butterworth, director of the division of nutrition at the University of Alabama School of Medicine in Birmingham, "stems from the conflicting evidence of research studies exploring a possible link between the pill, cancer and birth defects."

Several factors have made it difficult for researchers to develop solid evidence about the pill's safety. Since oral contraceptives did not come into widespread use until the mid to late 1960's, it is difficult to determine whether cancer will show up after extended use of the pill.

**DR. BUTTERWORTH** believes studying the effects sex hormones have on a woman's nutritional balance might yield findings to clearly prove or disprove any casual relationship that might exist between the pill and cancer or birth defects.

He is conducting research with the aid of a three-year, \$284,439 grant from the National Institutes of Health. "The thrust of our research will be to measure changes in vitamin content in the uterus with respect to birth control pills," explained Dr. Butterworth.

"There is some evidence that vitamin deficiency might cause an abnormal Pap smear," Dr. Butterworth continued. If we can learn how sex hormones change the nutritional composition of certain tissues, then we could give vitamin supplements to correct the deficiency. It is our hope this will simplify treatment and prove to be a way to prevent cancer." ■

### Medicaid Abuse Crack Down Begins

The AMA will participate in HEW's new "fraud and abuse initiative" program to crack down on the "dishonest activities of some Medicaid providers and clear the image of the overwhelming majority who are honest."

C. Willard Camalier Jr., MD, chairman of the AMA's Council on Medical Services said the AMA was enthusiastic about the HEW effort because "we too are convinced that a very small minority of Medicaid providers are actually engaged in fraudulent or abusive practices."

Dr. Camalier added that the AMA's newly established Ad Hoc Committee on Medical Discipline could offer suggestions on methods of dealing with the problem. ■

#### FAMILY PRACTICE PHYSICIANS

Openings for Family Practice Physicians in group practice. Excellent starting salary. If performance and qualifications are fulfilled, a sharing partnership is possible. Physician owned hospital adjoining. This is an opportunity to practice family medicine as training in this specialty is intended. Only U. S. medical school graduates need apply. Third year resident applications are encouraged. Contact John M. Canakaris, M.D., Bunnell General Hospital, Bunnell, Florida 32010 - Telephone (904) 437-3354.



# Uncommon Manifestations Of Hyperparathyroidism On Chest Roentgenograms

Rodrigo F. Luna, M.D., David C. Montiel, M.D., and William W. Daniel, M.D.\*

**THIS** paper presents and illustrates several of the less common roentgenographic manifestations of primary and secondary hyperparathyroidism, including a previously unreported lesion: destruction of rib with extrapleural mass density. Patients on renal dialysis are becoming more common in our daily practice, and these more unusual changes of hyperparathyroidism are being seen more frequently, as a consequence.

## Roentgen Findings

Hyperparathyroidism causes multiple changes in the skeletal system and soft tissues. The most common specific finding on roentgenograms of patients with this disorder is subperiosteal resorption of bone, especially on the radial side of the middle phalanges.<sup>1</sup> Resorption of distal phalangeal tufts is almost as frequent, and one or both of these findings occur in most untreated patients who exhibit any skeletal roentgenographic manifestation of their disease, other than general demineralization.<sup>1</sup>

Illustration 1 demonstrates a roentgenogram of the hand of a patient with secondary hyperparathyroidism. Subperiosteal resorption of phalangeal shafts and tufts is present. Other less frequent classical findings are loss of lamina dura of teeth, resorption of distal clavicle, "brown tumors" (osteitis fibrosa cystica) and soft tissue calcifications, including chondrocalcinosis.<sup>1</sup>

The more unusual findings presented in this paper are all manifestations of hyperparathyroidism demonstrated on chest roentgenograms. No roentgenologic distinction between primary and secondary hyperparathyroidism can be made.<sup>1</sup> Illustrations 2 and 3 demonstrate the progressive subperiosteal resorption of ribs in a patient with primary hyperparathyroidism. Illustration 2 shows a single lytic rib lesion with superior margins of ribs intact. Four months later the same patient has multiple erosions of superior ribs, in Illustration 3. Table I lists the differential diagnosis of superior marginal rib defects.<sup>2, 3, 4</sup>

Illustration 4 demonstrates subperiosteal resorption of the inferior border of both clavicles in an adult with secondary hyperparathyroidism. This subperiosteal resorption occurs from increased osteoclastic activity which is stimulated by the excessive levels of parathyroid hormone. Osteoblastic activity cannot keep up with bone removal by osteoclasts, and resorption of bone results.<sup>5</sup>

Illustration 5 demonstrates subperiosteal resorption of both humeri at the medial aspect of the proximal metaphyseal areas. Note that resorption of rib or clavicle has not occurred in this child. Illustration 6 demonstrates another manifestation of hyperparathyroidism in the hu-



No. 1—Subperiosteal resorption and distal tuft resorption.



No. 2



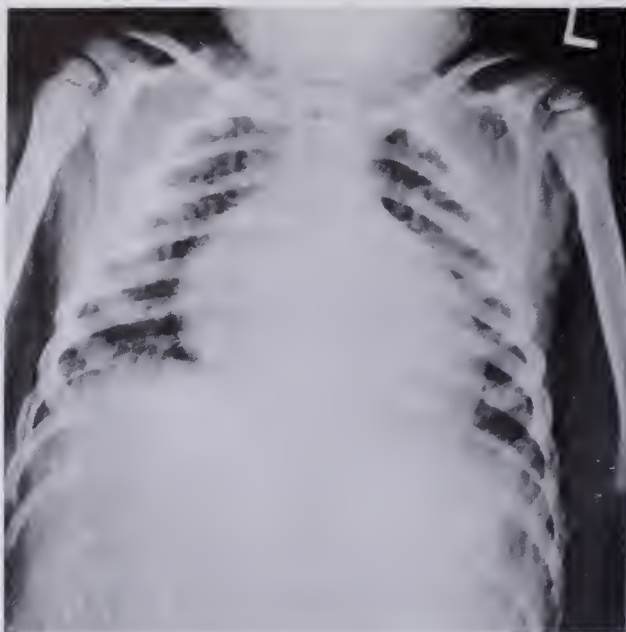
No. 3

No. 2—Lytic lesion of left 6th rib. No. 3—Same patient four months later. Progressive superior rib erosions.



No. 4—Subperiosteal resorption of inferior border of both clavicles.

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No. 5—Subperiosteal resorption of medial aspect of both humeri.



No. 6—Brown tumor of left humerus.

TABLE I

**Etiologic classification of superior marginal rib defects\***

- I. Disturbance of osteoblastic activity (decreased or deficient bone formation).
  1. Collagen diseases (rheumatoid arthritis, scleroderma, Lupus erythematosus, Sjogren's syndrome, dermatomyositis and ankylosing spondylitis).
  2. Localized pressure (rib retractors, chest tubes, multiple hereditary exostoses, neurofibromatosis, thoracic neuroblastoma, coarctation of the aorta with superior and inferior rib erosions).
  3. Intercostal muscle atrophy (neurogenic disease or restrictive lung disease from any cause).
  4. Osteogenesis imperfecta
  5. Marfan's syndrome
  6. Radiation damage
- II. Disturbance of osteoclastic activity (decreased bone resorption).
  1. Hyperparathyroidism
  2. Hypervitaminosis D.

\*Modified from Sargent,<sup>2</sup> et al

TABLE II

**Chest X-ray Manifestations of Hyperparathyroidism**

- I. General demineralization
- II. Subperiosteal resorption
  1. Distal clavicle
  2. Shaft of clavicle and humerus
  3. Rib
- III. Destructive lesions (osteitis fibrosis cystica)
  1. Brown tumors
  2. Destructive lesion of rib with extrapleural "mass" density.
- IV. Soft tissue calcifications

merus: a lytic area in the proximal metaphysis of the left humerus of a patient with secondary hyperparathyroidism. This lesion has the roentgen characteristics of a "brown tumor."<sup>6</sup>

Illustration 7 and 8 demonstrate the most uncommon manifestation of hyperparathyroidism in chest roentgenograms in our series: a destructive rib lesion associated with an extrapleural "mass." Illustration 7 shows the initial presentation of this patient with chronic renal failure. Illustration 8 demonstrates increase in size of the "mass" density after six months. These changes are more often seen with involvement by multiple myeloma or metastatic bone disease, and destructive rib lesion with mass caused by hyperparathyroidism has not been previously reported, to our knowledge. It should be emphasized that this does not represent just a "brown tumor," since the lesion presented here is a large soft tissue mass associated with complete destruction of a portion of rib.

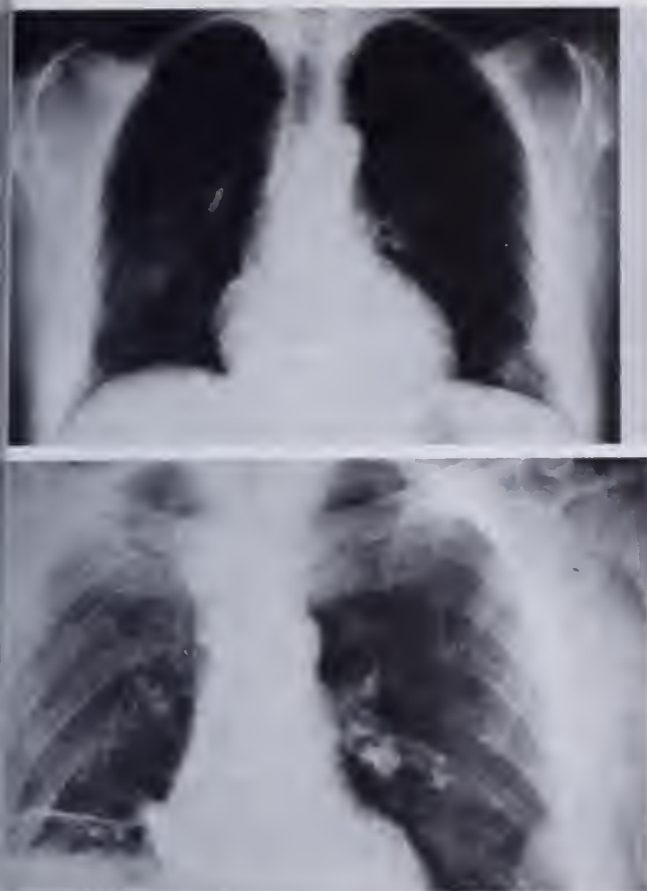
**Discussion**

Any unusual manifestation of hyperparathyroidism will almost always be associated with subperiosteal resorption of phalanges and other signs as described above.<sup>1</sup> Therefore, if a destructive rib lesion occurs, the more common causes of metastatic disease and multiple myeloma will not necessarily be the first consideration, if the patient is known to have hyperparathyroidism. An unnecessary search for nonexistent tumor may then be obviated, with knowledge that this condition alone may cause such findings.

If presented with such a lesion on the chest film, a single roentgenogram of the hands will almost always confirm the diagnosis of hyperparathyroidism and solve the problem of determining the etiology of the destructive rib lesion.

Look at Illustration 1 again. Did you notice the periarticular erosions at the metacarpophalangeal areas, as well as the subperiosteal resorption? These are also manifestations of hyperparathyroidism.<sup>8</sup> Table II gives a list of





(Top Photo) No. 7—Rib destruction with "mass" density.  
(Above) No. 8—Progressive enlargement of "mass" density after six months.

manifestations of hyperparathyroidism demonstrated on chest roentgenograms.

In summary, hyperparathyroidism may present with multiple skeletal findings, including resorption and destruction of bone.<sup>1</sup> Roentgenograms of the hands will serve to confirm the diagnosis, and further workup of the unusual lesions will not necessarily be required.

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## American College Of Radiology Commission On Cancer Interim Statement On Breast Cancer Diagnosis

### I. INTRODUCTION

Mammography has proven to be the most effective diagnostic tool so far developed for the detection of breast cancer at an early stage before it spreads to regional lymph nodes. This early detection increases the probability of cure. Mammography at appropriate intervals in asymptomatic women over age 35 promises to reduce significantly the number of deaths from breast cancer. Since there is now no definitive scientific evidence with regard to:

1. optimal age for the initial mammogram;
2. frequency of examination;
3. data on possible long term radiation risk;

this statement is being issued, as a summary of current informed opinion.

### II. CARE OF WOMEN WITH SYMPTOMS

In women who have symptoms of physical findings suggestive of possible breast cancer, medical decisions must be individualized to fit the patient's needs. Under these circumstances, mammography is an integral part of the evaluation of the patient.

### III. SCREENING OF ASYMPTOMATIC WOMEN

Recognizing that definitive data are not yet available that allow the establishment of firm criteria that define a protocol for the screening for breast cancer in asymptomatic women, the ACR recommends the following:

1. All women should have annual physical examination of the breasts and be taught breast self-examination.
2. For asymptomatic women the first, or baseline, mammographic examination should be performed between the ages of 35 and 40.
3. Subsequent mammographic examinations should be performed at one to three year intervals unless more frequent examination is medically warranted.
4. After age 50, annual or other regular interval examinations, including mammography, should be performed.
5. Although the carcinogenic effects of radiation at current levels of exposure are probably immeasurably small, continuing attempts to reduce exposure should be made. However, image quality must be preserved for accurate diagnosis to insure the best risk/benefit (cure) ratio.
6. Each radiologist should assure the periodic monitoring of his equipment and procedures to determine that the patient's exposure is being maintained at the lowest feasible level.

### IV. RESEARCH PROGRAMS

The protocol currently being followed by the NCI/ACS sponsored "Breast Cancer Detection Demonstration Projects" should be pursued so that the data are as complete and accurate as possible in order that meaningful conclusions can be drawn. Follow-up of the patients must be carried out for a number of years to insure collection and evaluation of the data. Theoretical concerns of possible radiation induced breast cancer do not warrant change in the current protocol of the "Breast Cancer Detection Demonstration Projects." Estimates of risk that include a radiation carcinogenic effect are of dubious validity because of the lack of objective scientific evidence. Research must be continued and encouraged to:

1. improve methods for measurement of low level radiation;
2. further reduce the radiation dose in mammography consistent with good image quality;
3. determine the most appropriate age at which to begin screening for different risk groups;
4. define women of high risk;
5. define those mammographic findings that dictate re-examination at a shorter interval;
6. establish the appropriate intervals for re-examination; and
7. collect evidence of the benefits and risks of mammography. ■



# Nutritional Therapy

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**INGESTED** foodstuffs are divided into three types—carbohydrate, protein, and fat. Carbohydrates compose 55-60% of the average daily diet. They are the principal metabolic fuel. Glycogen is a readily available source of stored carbohydrate which is utilized during stress. Unfortunately, glycogen stores are relatively small and can supply caloric requirements for only a brief period of time, no more than 12-18 hours even during basal fasting states.

Approximately 70-100 gr. of protein are ingested daily. Early investigators spoke of a labile protein pool but, in truth, there is no such thing. Every protein form is incorporated into a vital use — enzyme systems, structural proteins, transfer proteins, blood components, and hormones. Inadequate dietary intake results in an impairment of significant proportion — poor wound healing, hypoalbuminemia, anemia, and impaired immunologic competence.

In the absence of sufficient carbohydrate intake, protein is broken down through gluconeogenesis to provide carbohydrate substrate, resulting in negative nitrogen balance. One gram of nitrogen is equivalent to 6.25 gr of protein, or 32 grams of lean body muscle. A normal man has approximately 32 Kg of body cell mass.

**CAHILL AND OTHERS** have observed that a loss of 30% of the muscle mass in previously well nourished individuals results in a 100% mortality. This represents a weight loss of 25 to 35 pounds. Thus, the loss of protein by deficient intake or because of increased utilization through gluconeogenesis cannot be overlooked. Chronically debilitated patients will probably succumb with muscle mass losses of between 15 and 20%.

Fats are the most efficient form of stored energy representing 140,000 calories, or nearly 85% of the total calories available for use. However, the utilization of stored fats for the principal caloric source requires a period of metabolic adaptation even during starvation and does not totally prevent the loss of protein through gluconeogenesis. Fat stores represent a tremendous potential energy source during periods of starvation or stress but their utilization is unable to prevent protein loss.

The protein sparing effects of glucose were first noted by Gamble over 30 years ago. He showed that infusions of glucose through peripheral veins markedly decreased measurable nitrogen losses. It should be remembered, however, that these studies were performed in healthy volunteers who were placed in a starvation state. We now know that stressful situations — burns, sepsis, trauma — are not comparable to resting starvation. The former is associated with increased metabolic requirements while the latter is associated with decreased metabolic needs. The point I wish to make is that standard IV infusions of 5% glucose

solutions only supply 600 calories per day. They do not meet the caloric requirements of any patient with an on-going disease process nor do they prevent protein loss.

Basal metabolic requirements in a normal patient approach 1800 calories and 6 gr of nitrogen per day. Patients undergoing major surgery, suffering from burns or trauma, or those with significant infections will often require twice these daily allowances to prevent catabolism. Until 9 years ago, there was no safe or effective means to supply patients with these daily requirements. Dudrick and his associates, in both laboratory and clinical studies<sup>1</sup>, demonstrated that hypertonic solutions of glucose, amino acids, vitamins, and electrolytes could be safely delivered through the subclavian vein to meet all nutritional requirements in a variety of hypermetabolic states, and to return these patients to a state of positive nitrogen balance. Total parenteral nutrition, or hyperalimentation, as it is most frequently called, came to be a clinical reality. This single event stimulated and renewed medical interest in nutrition, a heretofore neglected subject in most physicians' training.

**ONE OF THE MOST** dramatic uses of total parenteral nutrition has been in the management of gastrointestinal fistulas. Prior to its usage, fistula patients suffered a significant morbidity and reported mortality rates of 40 to 65%. Chapman<sup>2</sup> first noted the importance of nutritional therapy in the management of these patients. In his study, patients receiving less than 1,000 calories per day incurred a mortality of 58%. Those patients receiving 1500-2000 calories per day had a mortality rate of only 16%. MacFadyen reported the results in 62 patients with 78 fistulas using total parenteral nutrition<sup>3</sup>. Over 70% of the fistulas closed spontaneously. Of those patients requiring operative closures, 94% were successful. His overall mortality was 6.4%. Other studies using elemental diets report similar data<sup>4</sup>. Nutritional support of these patients has now become a principal therapeutic goal in their management.

Acute inflammatory bowel disease is marked by fluid and electrolyte loss, protein depletion in the form of mucous, purulent exudate, and diarrhea, and malabsorption of carbohydrates, fats, and vitamins. Fluid losses of 3-5 liters per day and nitrogen losses of 15-20 gr per day are not uncommon. Even during brief exacerbations of their disease process, these patients become hypercatabolic with attendant protein malnutrition. Quiescent periods may be marked by marginal nutritional stability because of short bowel syndrome, secondary lactose deficiencies, steroid therapy, or insidious reactivation of their disease process. The ability to adequately aliment these patients during all phases of their disease has recently been recognized as extremely important to reduce their morbidity. Both intravenous hyperalimentation<sup>5</sup> and elemental diets have been used successfully to nutritionally support these patients.

The elemental or chemically defined diet is composed of predigested proteins, glucose, vitamins, minerals, and fats,

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primarily in the form of medium chain triglycerides. It is rapidly absorbed from the upper G-I tract, requiring little in the way of digestive action or transport. It is best administered by a continuous infusion through a small nasogastric tube.

Disease involving the duodenum or proximal jejunum may preclude its use in some patients.

Total parenteral nutrition can be used in all patients, places the G-I tract at rest, and is independent of G-I absorption. Its major disadvantage is the risk of catheter sepsis which is reported to be around 6%.

**BOTH OF THESE** methods to deliver adequate caloric and protein sources to the patient are useful during the course of the disease. During the acute phase, TPN seems more efficacious. When the diarrhea has slowed and bowel activity has returned to near normal activity, then the elemental diet can be used as the sole nutritional support until normal G-I function is restored. These same diets may be used as supplemental feedings during periods of quiescence.

The results to date using supplemental nutritional support are encouraging<sup>6,7</sup>. The catabolic phase can be reversed and the patients brought in to positive nitrogen balance. Virtually all patients on steroids can have a reduction in dosage after receiving nutritional support. Fistulas can be expected to close spontaneously. Whether or not surgical intervention can be avoided in some patients is highly speculative. Patients admitted with obstruction, perforation, intra-abdominal abscesses will still require operative procedures. However, their preoperative nutritional status can be markedly improved and the postoperative complication rate reduced. Others admitted with acute exacerbations can expect a remission rate of 50-80%, depending upon the site of their disease involvement. In brief, the catabolic consequences of acute inflammatory bowel disease can now be avoided with the use of nutritional support early in the course of the disease. Whether or not this alters the course of the disease is unknown at this time.

Thermal injuries represent the most severe form of stress to man. A previously healthy adult could be completely starved and survive two months or longer. The hypermetabolic burn patient, with nitrogen losses of 30 grams per day, could survive no longer than 3 to 4 weeks. This hypermetabolic state arises from at least three causes:

1. Increased metabolic heat production secondary to increased water evaporative loss from the burn wound. Measurements of oxygen consumption and insensible water loss correlate with the area of the burn wound. Covering of the wound in experimental animal studies has been shown to decrease the metabolic rate. Furthermore, the level of the ambient room temperature has been shown to alter the metabolic rate.
2. Protein loss from the wound. This contributes 20-25% of the total nitrogen lost from the body in the early post burn period. Surface losses of protein decrease with time and closure of the wound.
3. Increased catecholamine production. Liberation of large amounts of catecholamines during the stress of burns causes mobilization of amino acids from body protein

stores, stimulates glyconeogenesis, and promotes ureagenesis. Catecholamines are also antagonists of insulin, an anabolic hormone. Glucagon, another insulin antagonist, is also released with increased catecholamine activity. Wilmore,<sup>8</sup> in extensive metabolic studies on burn patients, suggests that this increased production and release of catecholamines is largely responsible for the hypermetabolic state seen in burn patients. He notes that with closure of the burn wound, urinary catecholamines fall to normal levels as do serum measurements of insulin and glucagon.

**NUTRITIONAL REQUIREMENTS** are increased in proportion to the extent of the burn surface area. It should be remembered that associated fractures and surgical procedures add to those metabolic requirements. When the total body burn is 40 to 50% of the surface area, maximal metabolic needs are reached. Caloric requirements are 200-2200 calories and 15 grams of nitrogen per M<sup>2</sup>/per day. This is more than twice basal requirements for normal man. Vitamin requirements, especially for vitamins A, C, and thiamin are also greatly increased during the post burn period. To supply these nutritional requirements, combinations of parenteral and enteral feedings may be necessary. As the burn surface heals, metabolic needs decrease but will not return to normal levels until all burn sites are completely healed. Thus nutritional support of these patients is an on-going process for weeks or even months.

Nutritional support in those patients with gastrointestinal gistula, inflammatory bowel disease, burns, and post-operative patients is now accepted as proper adjunctive therapy. While studies are few in number, there is increasing interest in the relationship between nutrition and cancer therapy. The nutritional effects of cancer are summarized on Table 1.

**TABLE 1    NUTRITIONAL EFFECTS OF CANCER**

Anorexia
Weight loss
Malabsorption
Endocrine disorders
Fluid and electrolyte abnormalities

While known to be an important cause of protein caloric malnutrition seen in cancer patients, the mechanism of anorexia is poorly understood. Certainly chemotherapeutic agents and radiotherapy can cause anorexia, but most of these patients have depressed appetites long before the diagnosis is made. Relative intestinal malabsorption has been reported with extra intestinal tumor masses, associated with a protein losing enteropathy and anatomical changes in the intestinal villi: Endocrinopathies — the Zollinger-Ellis syndrome, WDHA, carcinoid syndrome, and medullary carcinomas of the thyroid — are all associated with diarrhea, protein loss, and fluid and electrolyte abnormalities.

Treatment for malignant disease often adds to the patient's metabolic needs and restricts their ability to ingest an adequate diet. Radical surgical procedures markedly impair normal gastrointestinal function. Esophagectomy is associated with fat malabsorption. This, along with gastric



stasis and diarrhea, has been attributed to sacrifice of the vagal nerve fibers during the procedure. Gastrectomy is associated with similar problems. With neoplastic disease, large portions or even the entire stomach is removed in contrast to resectional surgery for benign disorders. Without a gastric reservoir or the functioning pylorus, small bowel transit time may be increased to where absorption of all foodstuffs is impaired. Vitamin B<sub>12</sub> and Vitamin D deficiencies are common occurrences, along with an iron deficiency anemia. Massive small bowel resection or resection of the distal ileum also cause malabsorption states.

**RADIATION THERAPY** is not without G-I sequelae. Treatment of head and neck tumors is associated with loss of taste buds, oromucositis, and dysphagia. Radiation of chest tumors often causes esophagitis and radiation pneumonitis. Abdominal radiation for gynecologic tumors may be associated with radiation enteritis, partial small bowel obstruction, and malabsorption.

Lastly, chemotherapeutic agents often cause nausea, vomiting and loss of appetite. Increased urinary protein losses appear as tumor tissue dissolution occurs. The drugs themselves may cause changes in the intestinal mucosa preventing effective absorption of fats, proteins, and carbohydrates.

Protein caloric malnutrition in the cancer patient, therefore, results not only from the disease, but often as a result of the treatment. Nutritional support in the past has consisted of encouraging the patient to eat a high caloric, high protein diet. This is still a desirable goal. The patient's menu should be varied to his tastes and the foods prepared in an attractive manner. Palatability is very important. The diet may need to be altered to give six feedings per day or between meal snacks provided until adequate proteins and calories are ingested.

Some patients, however, because of severe anorexia associated with their disease, become so nutritionally depleted that therapy must be discontinued or delayed. Copeland reported on the use of nutritional therapy in 58 patients who were considered untreatable or at extremely high risk for oncologic therapy because of their catabolic state<sup>9</sup>. All patients were treated with intravenous hyperalimentation during the course of their chemotherapy. A response to chemotherapy was considered to be a 50% reduction in measurable tumor size. Thirty-six per cent of the patients responded to chemotherapy. Three additional patients had tumor mass regression of 25%. Fifty-two patients gained an average weight of nearly 7 pounds during the treatment period. Weight gain during chemotherapy is associated with a favorable response to therapy as is positive nitrogen balance prior to initiation of therapy. Another finding was better tolerance of drugs and avoidance of toxic effects, certainly with the agent 5-Fluorouracil.

**THEORETICALLY**, there are two additional reasons to use nutritional therapy in conjunction with cancer treatment. First, there is some evidence suggesting that tumor metabolism involves the glycolytic cycle with liberation of lactic acid into the tumor environment and a progressive lowering of the pH. Methotrexate may be better incorporated into tumor cells in this acid environment. Effective tissue pH ranges for most chemotherapeutic agents remain to be established. Secondly, it is known from multiple

studies that protein-calorie malnutrition of various etiologies is associated with a decreased efficiency of the immune system. Depressed B-cell and T-cell activity in association with altered phagocytic activity have been reported with malnourished states<sup>10-13</sup>. Restitution of normal immunologic competence occurs when positive nitrogen balance is restored. With increasing emphasis on the immunologic control of cancer, this inter-relationship between nutrition and immunologic competence assumes a growing interest.

In addition, Buenos<sup>14</sup> in a series of well designed animal studies, clearly showed the beneficial effects of elemental diets in radiated rats. Higher doses of radiation could be delivered to those animals receiving elemental diets than standard diets, and radiation enteritis was avoided. Whether or not this is a direct effect of the diet upon the intestine or merely a reflection of an overall positive nutritional state is unknown. Similar human studies are not yet available but certainly merit investigation.

Nutritional therapy is more than a consult to the dietician. It is an appreciation for the increased metabolic demands caused by disease and the ability to meet these needs through diet adjustments, elemental diets, or total parenteral nutrition. The therapeutic value of nutrition in the treatment of intestinal fistulas, postoperative starvation, burns, and inflammatory bowel disease is now well recognized. Newer uses — renal failure, steatosis, sepsis, cancer therapy, and immunologic improvement — offer exciting challenges.

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POEM FROM THE  
STANFORD M.D. ALUMNI ASSOCIATION

*"The time has come for Medicine  
To delve in many things  
In PSROs and HMOs  
In strikes by underlings.  
And if mischance is truly tort,  
Or whether feti should abort,  
All these and other mundane jolts  
We dodge or leave to officious dolts.  
Then cry in rage when undercut  
And claim it should be different, but—  
The time is now. There is no more  
We must now act if not before—.  
Or else our charge be forever messed  
And our fate becomes far less than best."*

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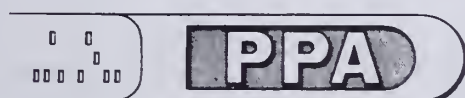
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## ASSOCIATION FORUM:

# Public Law 93-641:

## What does it mean to you and me?

By HAL FERGUSON, M.D.\*

When President Ford signed the National Health Planning and Resources Development Act into law (PL 93-641), he was "providing equal access to quality health care at a reasonable cost."

**HOW?** By creating some 200 Health System Areas covering the entire nation, each managed by a Health Systems Agency. To accomplish its stated goal, four directives must be activated. These are:

1. A Certificate of Need legislation in each state.
2. Incorporate all Comprehensive Health Planning, Regional Medical, and Hill-Burton Programs in a Health Planning and Funding complex that is complete from the national through the local area.
3. To study and evaluate the appropriateness and need of all existing and planned new health facilities.
4. Develop a giant computerized data base, integrated with P.S.R.O. and other appropriate agencies to monitor medical services provided by these health facilities and to alter reimbursements as needed.

**WHO WILL CONTROL THE HEALTH SYSTEM AGENCY?** Its Board, recognized and funded by H.E.W., is composed of a diverse group of local citizens; 51% must be consumers, and 49% or less providers. The latter group must be composed of practicing doctors of medicine, health officers, university officials involved in medical education, health insurance executives, hospital and nursing home administrators, representatives from H.M.O. (if any are accredited and exist in the area), a representative from the local Veterans Administration hospital, and all other health professionals such as dentists, nurses, various ancillary technicians, veterinarians, and other health professionals are included as providers, as are their spouses.

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\*Dr. Ferguson is in Obstetrics-Gynecology at the Simon-Williamson Clinic, Birmingham. The opinions expressed here reflect those of the author. They do not necessarily reflect those of the editorial review board of this Journal.

Consumers are to include members of local government, unions, chambers of commerce, and religious and social groups. Their nomination and election is to be at open forum, and their participation must be solicited in newspaper ads. Both provider and consumer groups are to be a balanced cross-section of the health systems area as far as race, sex and affluence (poverty to riches).

In action the H.S.A., with its professional staff, will prepare an Annual Health Systems Plan and an Annual Implementation Plan, integrated at state and national levels to accomplish the four major goals of 93-641.

Medicine must recognize and tag this act as a Trojan Horse; already North Carolina is testing the constitutionality of the Certificate of Need part of the law; and other suits are in the courts as to the constitutionality of the entire law. At this writing, provisional certification of the local H.S.A. Boards is lagging, and its funding is meager: 90 million, divided 50 million to H.S.A.'s and 40 million to fund all other provisions of 93-641 including state H.S.A.'s and S.H.C.C. There is a proposed increase to over 100 million for the year of 1977. When this is equated with an H.E.W. budget of 31 billion dollars in 1976, and projected 40 billion in 1977, it is obvious that a slight shift of funds could adequately subsidize the H.S.A.'s and guarantee their success.

**WHAT ARE WE TO DO?** Wait and see? No. Get into the act by seeing that the best qualified doctors of medicine in each area are pressed into service in each Agency. Assist each provider group in picking its most competent member to work in and with the Agency. Urge local government, industry, service organizations, and unions to appoint from its membership knowledgeable, reliable and responsible members to work in the Agency, provide them with honest statistics, and review all matters pressed on the H.S.A. for action so that fair judgment may be rendered on a given problem.

Only when dedicated and reliably informed individuals are brought into service in the Health Systems Agency can its work be directed toward true service to the community and away from tyranny. ■





# The Month In Washington

**NHI Proposed**—Former Georgia Gov. Jimmy Carter will bring to Congress a proposed national health insurance program right off the bat if he becomes President.

The apparent Democratic presidential nominee told reporters "I'm not going to wait...on welfare reform, national health insurance, etc., I intend to be ready to go with that the first of the year."

In social programs, former President Lyndon Johnson did an excellent job, but we still have a long way to go with national health care, reform of the welfare system, reform of the tax system," said Carter. "I don't make those commitments idly," he said. "This is something that could be done. I say that we need a national health insurance program—I mean to do it."

\*\*\*

**Stop On Medicaid Payments**—The General Accounting Office (GAO) has put a stop order on federal Medicaid payments to states for certain Medicaid programs where standards for long-term hospitalization certifying quality have not been enforced. The payments, which could add up to \$800 million annually, would be barred after July 1 unless states comply.

The letter from GAO, Congress' investigating arm, stemmed from a running dispute between HEW Secretary David Mathews and Rep. John Moss (D-Calif.) over whether HEW has properly enforced provisions of the Medicaid law requiring states to file plans on monitoring patients hospitalized longer than 60 days.

Mathews has contended the problem is partially the federal government's fault and that states and Medicaid beneficiaries shouldn't be penalized. However, Moss, Chairman of the House Commerce Subcommittee on Oversight and Investigations, commented that the GAO action marks the end of Secretary Mathew's intransigence and the beginning of improving standards of health care for consumers."

\*\*\*

**Cigarette Adv. Ban**—A majority of adult Americans support a ban on cigarette advertising according to a survey by the National Cancer Institute and the Center for Disease Control.

The survey of 12,500 persons found decreasing tolerance for cigarette smoking since 1970. Nearly two thirds of those surveyed, including one-third of the smokers polled, said it was annoying to be near a person smoking cigarettes. Also,

56 per cent, including 40 per cent of the smokers, said that cigarette advertising should be stopped completely.

The survey showed that the proportion of cigarette smokers has declined since 1970, although the total number of smokers has increased by 875,000 based on population.

The restriction of smoking in public places was agreed to by 70 per cent of those surveyed compared to 57 per cent in 1970.

\*\*\*

**New Law**—President Ford has signed legislation expanding the role of the National Heart and Lung Institute in blood diseases and resources. The Institute's name will be changed to The National Heart, Lung and Blood Institute to reflect the added responsibilities.

The law authorizes \$339 million this fiscal year and \$373 million for fiscal 1977 for the Institute, part of the National Institutes of Health.

Up to 30 research and demonstration centers will be established to conduct research, provide training, and carry out demonstrations of advanced techniques of prevention, diagnosis and treatment. Ten centers will focus on heart and blood vessel diseases; 10, pulmonary diseases; and 10 on blood diseases, medical use of blood and blood products, and blood resource management.

The bill provides \$40 million for prevention and control activities with special emphasis on cardiopulmonary and blood disorders. ■

## Worker Health To Be Theme Of Annual AMA Conference

The health and safety of the American worker on his job will be the theme of the 36th Congress on Occupational Health, Sept. 20-21 at Rochester, N.Y. (Americana Hotel).

Co-sponsors for the Congress will be the American Medical Association and the National Institute for Occupational Safety and Health.

Workshop symposia will cover such topics as worker's compensation, radiation, medical recordkeeping, interdisciplinary teamwork, labor-management relations, workers who fly on the job, walk-through surveys of working areas and women at work.

Physicians may receive credit toward the continuing education awards of the AMA and the American Academy of Family Physicians. Registration fee will be \$30. Additional information is available from the AMA's Department of Environmental, Public, and Occupational Health, 535 N. Dearborn St., Chicago, Ill. 60610. ■



## Physicians For The Day For The Months Of July-August, 1976

*J. G. Davis, M.D.*

*Birmingham, Alabama*

*Homer Caruso, M.D.*

*Rainesville, Alabama*

*T. Riley Lumpkin, M.D.*

*Tuscaloosa, Alabama*

*Dick Owens, M.D.*

*Tuscaloosa, Alabama*

*Al Ratcliffe, M.D.*

*Tuscaloosa, Alabama*

*Herbert Stone, M.D.*

*Tuscaloosa, Alabama*

*Russ Anderson, M.D.*

*Tuscaloosa, Alabama*

*Ted Simmons, M.D.*

*Tuscaloosa, Alabama*

*Jim Gascoigne, M.D.*

*Tuscaloosa, Alabama*

*Nick Knight, M.D.*

*Tuscaloosa, Alabama*

*Ira B. Patton, M.D.*

*Oneonta, Alabama*

*Theo Kirkland, M.D.*

*Birmingham, Alabama*

*Robert D. Williamon, M.D.*

*Linden, Alabama*

*Paul F. Ketcham, M.D.*

*Demopolis, Alabama*

Before prescribing, please consult complete product information, a summary of which follows:

**Indications:** In adults, urinary tract infections complicated by pain (primarily pyelonephritis, pyelitis and cystitis) due to susceptible organisms (usually *E. coli*, *Klebsiella-Aerobacter*, *Staphylococcus aureus*, *Proteus mirabilis*, and, less frequently, *Proteus vulgaris*) in the absence of obstructive uropathy or foreign bodies. **Note:** Carefully coordinate *in vitro* sulfonamide sensitivity tests with bacteriologic and clinical response; add aminobenzoic acid to follow-up culture media. The increasing frequency of resistant organisms limits the usefulness of antibacterials including sulfonamides. Measure sulfonamide blood levels as variations may occur; 20 mg/100 ml should be maximum total level.

**Contraindications:** Children below age 12; sulfonamide hypersensitivity; pregnancy at term and during nursing period; because Azo Gantanol contains phenazopyridine hydrochloride it is contraindicated in glomerulonephritis, severe hepatitis, uremia, and pyelonephritis of pregnancy with G.I. disturbances.

**Warnings:** Safety during pregnancy not established. Deaths from hypersensitivity reactions, agranulocytosis, aplastic anemia and other blood dyscrasias have been reported and early clinical signs (sore throat, fever, pallor, purpura or jaundice) may indicate serious blood disorders. Frequent CBC and urinalysis with microscopic examination are recommended during sulfonamide therapy.

**Precautions:** Use cautiously in patients with impaired renal or hepatic function, severe allergy, bronchial asthma; in glucose-6-phosphate dehydrogenase-deficient individuals in whom dose-related hemolysis may occur. Maintain adequate fluid intake to prevent crystalluria and stone formation.

**Adverse Reactions:** *Blood dyscrasias* (agranulocytosis, aplastic anemia, thrombocytopenia, leukopenia, hemolytic anemia, purpura, hypoprothrombinemia and methemoglobinemia); *allergic reactions* (erythema multiforme, skin eruptions, Stevens-Johnson syndrome, epidermal necrolysis, urticaria, serum sickness, pruritus, exfoliative dermatitis, anaphylactoid reactions, periorbital edema, conjunctival and scleral injection, photosensitization, arthralgia and allergic myocarditis); *G.I. reactions* (nausea, emesis, abdominal pains, hepatitis, diarrhea, anorexia, pancreatitis and stomatitis); *CNS reactions* (headache, peripheral neuritis, mental depression, convulsions, ataxia, hallucinations, tinnitus, vertigo and insomnia); *miscellaneous reactions* (drug fever, chills, toxic nephrosis with oliguria and anuria, periarteritis nodosa and L.E. phenomenon). Due to certain chemical similarities with some goitrogens, diuretics (acetazolamide, thiazides) and oral hypoglycemic agents, sulfonamides have caused rare instances of goiter production, diuresis and hypoglycemia. Cross-sensitivity with these agents may exist.

**Dosage:** Azo Gantanol is intended for the acute, painful phase of urinary tract infections. *Usual adult dosage:* 2 Gm (4 tabs) initially, then 1 Gm (2 tabs) B.I.D. for up to 3 days. If pain persists, causes other than infection should be sought. After relief of pain has been obtained, continued treatment with Gantanol (sulfamethoxazole) may be considered.

**NOTE:** Patients should be told that the orange-red dye (phenazopyridine HCl) will color the urine.

**Supplied:** Tablets, red, film-coated, each containing 0.5 Gm sulfamethoxazole and 100 mg phenazopyridine HCl—bottles of 100 and 500.



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**When pain  
complicates acute cystitis\***

# **Azo Gantanol<sup>®</sup>**

Each tablet contains 0.5 Gm sulfamethoxazole and 100 mg phenazopyridine HCl.

**for the pain      for the pathogens**

☐ **Early relief of painful symptoms** such as burning and discomfort associated with urgency and frequency.

☐ **Effective control of susceptible pathogens** such as *E. coli*, *Klebsiella-Aerobacter*, *Staph. aureus*, *Proteus mirabilis* and, less frequently, *Proteus vulgaris*.

☐ **Appropriate antibacterial therapy:** up to three days with Azo Gantanol, then 11 days with Gantanol<sup>®</sup> (sulfamethoxazole).



\*nonobstructed; due to susceptible organisms





# DYAZIDE<sup>®</sup>

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Each capsule contains 50 mg. of Dyrenium<sup>®</sup> (triamterene, SK&F Co.) and 25 mg. of hydrochlorothiazide.

## MAKES SENSE FOR LONG-TERM CONTROL OF HYPERTENSION\*



Before prescribing, see complete prescribing information in SK&F literature or PDR. The following is a brief summary.

**\* Warning:** This fixed combination drug is not indicated for initial therapy of edema or hypertension. Edema or hypertension requires therapy titrated to the individual patient. If the fixed combination represents the dosage so determined, its use may be more convenient in patient management. The treatment of hypertension and edema is not static, but must be reevaluated as conditions in each patient warrant.

**\* Indications:** *Edema:* That associated with congestive heart failure, cirrhosis of the liver, the nephrotic syndrome; steroid-induced and idiopathic edema; edema resistant to other diuretic therapy. *Mild to moderate hypertension:* Usefulness of the triamterene component is limited to its potassium-sparing effect.

**Contraindications:** Pre-existing elevated serum potassium. Hypersensitivity to either component. Continued use in progressive renal or hepatic dysfunction or developing hyperkalemia.

**Warnings:** Do not use dietary potassium supplements or potassium salts unless hypokalemia develops or dietary potassium intake is markedly impaired. Lacturic-coated potassium salts may cause small bowel stenosis with or without ulceration. Hyperkalemia ( $>5.4$  mEq/L) has been

reported in 4% of patients under 60 years, in 12% of patients over 60 years, and in less than 8% of patients overall. Rarely, cases have been associated with cardiac irregularities. Accordingly, check serum potassium during therapy, particularly in patients with suspected or confirmed renal insufficiency (e.g., elderly or diabetics). If hyperkalemia develops, substitute a thiazide alone. If spironolactone is used concomitantly with 'Dyazide', check serum potassium frequently—both can cause potassium retention and sometimes hyperkalemia. Two deaths have been reported in patients on such combined therapy (in one, recommended dosage was exceeded; in the other, serum electrolytes were not properly monitored). Observe patients on 'Dyazide' regularly for possible blood dyscrasias, liver damage or other idiosyncratic reactions. Blood dyscrasias have been reported in patients receiving Dyrenium (triamterene, SK&F). Rarely, leukopenia, thrombocytopenia, agranulocytosis, and aplastic anemia have been reported with the thiazides. Watch for signs of impending coma in acutely ill cirrhotics. Thiazides are reported to cross the placental barrier and appear in breast milk. This may result in fetal or neonatal hyperbilirubinemia, thrombocytopenia, altered carbohydrate metabolism and possibly other adverse reactions that have occurred in the adult. When used during pregnancy or in women who might bear children, weigh potential benefits against possible hazards to fetus.

**Precautions:** Do periodic serum electrolyte and

BUN determinations. Do periodic hematologic studies in cirrhotics with splenomegaly. Anti-hypertensive effects may be enhanced in post-sympathectomy patients. The following may occur: hyperuricemia and gout, reversible nitrogen retention, decreasing alkali reserve with possible metabolic acidosis, hyperglycemia and glycosuria (diabetic insulin requirements may be altered), digitalis intoxication (in hypokalemia). Use cautiously in surgical patients. Concomitant use with antihypertensive agents may result in an additive hypotensive effect. 'Dyazide' interferes with fluorescent measurement of quinidine.

**Adverse Reactions:** Muscle cramps, weakness, dizziness, headache, dry mouth; anaphylaxis; rash, urticaria, photosensitivity, purpura, other dermatological conditions; nausea and vomiting (may indicate electrolyte imbalance), diarrhea, constipation, other gastrointestinal disturbances. Necrotizing vasculitis, paresthesias, icterus, pancreatitis, xanthopsia and, rarely, allergic pneumonitis have occurred with thiazides alone.

**Supplied:** Bottles of 100 capsules; in Single Unit Packages of 100 (intended for institutional use only).

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**methylprednisolone, Upjohn**

The explicit printed dosage instructions that accompany each Dosepak make it easy for the patient to understand and follow the dosage regimen.







When Big Ben looks "a little off"...

# Antivert<sup>®</sup>/25 (meclizine HCl) 25 mg. Tablets for vertigo\*

■ **Most Widely Prescribed**—Antivert is the most widely prescribed agent for the management of vertigo\* associated with diseases affecting the vestibular system such as Menière's disease, labyrinthitis, and vestibular neuronitis.

■ **Relief of Nausea and Vomiting**—Antivert/25 can relieve the nausea and vomiting often associated with vertigo\*.

■ **Dosage for Vertigo\***—The usual adult dosage for Antivert/25 is one tablet t.i.d.

#### BRIEF SUMMARY OF PRESCRIBING INFORMATION

**\*INDICATIONS.** Based on a review of this drug by the National Academy of Sciences—National Research Council and/or other information, FDA has classified the indications as follows:

**Effective:** Management of nausea and vomiting and dizziness associated with motion sickness.

**Possibly Effective:** Management of vertigo associated with diseases affecting the vestibular system.

Final classification of the less than effective indications requires further investigation.

**CONTRAINDICATIONS.** Administration of Antivert (meclizine HCl) during pregnancy or to women who may become pregnant is contraindicated in view of the teratogenic effect of the drug in rats.

The administration of meclizine to pregnant rats during the 12-15 day of gestation has produced cleft palate in the offspring. Limited studies using doses of over 100 mg./kg./day in rabbits and 10 mg./kg./day in pigs and monkeys did not show cleft palate. Congeners of meclizine have caused cleft palate in species other than the rat.

Meclizine HCl is contraindicated in individuals who have shown a previous hypersensitivity to it.

**WARNINGS.** Since drowsiness may, on occasion, occur with use of this drug, patients should be warned of this possibility and cautioned against driving a car or operating dangerous machinery.

**Usage in Children:** Clinical studies establishing safety and effectiveness in children have not been done; therefore, usage is not recommended in the pediatric age group.

**Usage in Pregnancy:** See "Contraindications."

**ADVERSE REACTIONS.** Drowsiness, dry mouth and, on rare occasions, blurred vision have been reported.

More detailed professional information available on request.

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New York New York 10017



WHAT is the best education for a physician? Even the question is controversial. People can agree only on the broadest, vaguest terms: "He (or she) should know how to make sick people well." "He should know medicine inside-out." "He should be the most expert person, the most final authority, the most highly and generally educated individual of society in matters of health care and disease prevention." It is possible to get at least general, if not unanimous, agreement on such statements. But when one begins to reach the specifics, marked divergence of opinion appears.

Of the 115 accredited medical schools in the United States, 17 have three-year programs only, 30 have optional three- or four-year programs, and 68 have four-year programs. In some 85 schools, the basic sciences are taught in the traditional disciplines (anatomy, physiology, biochemistry, etc.), but in about 20 or 30 schools, there are no such courses. Instead there are "organ-oriented" courses divided into cardiovascular, pulmonary, endocrinology/metabolism, renal, etc. sections or "segments." The three-year and organ-oriented innovations have occurred mainly since the late 1960s with the encouragement of federal money.

IN 1957 I visited central Africa, particularly the Belgian Congo, now called Zaïre. Because of the acute shortage of doctors and the impossibility of staffing remote villages with physicians trained in the European tradition, medical professionals received the following training. An individual, age perhaps 10 or 15 years and illiterate, was given about 5 years of schooling to teach him the essentials of reading, writing, and arithmetic. He was then sent to "medical school," a two-year course in how to use a microscope for identification of tropical parasites, how to obtain the specimens to be examined, the rudiments of a history and physical examination with special reference to local diseases (malaria, schistosomiasis, filariasis, etc.), and the proper treatment of such diseases. The "doctor" was then sent into the field, perhaps following a brief apprenticeship with a similarly trained older man, to serve the public. He had the authority to prescribe and dispense medications and carry out simple procedures such as circumcisions. These "doctors" also had their local equivalent of the chiropractors to deal with; namely, the witch doctors. The Belgians sometimes referred to these briefly trained health care professionals as "infirmiers;"\* but as this also meant "nurse" in French, they were sometimes also referred to by the local black populace as "nanga buka," meaning something in the local Tshiluba dialect like "doctor" means to the average modern American.

\*The lower level was "aide infirmier" and the higher "infirmier diplômé". They were also referred to by a variety of local names, such as "medical assistant," and even then there was great controversy about their proper training and role. Recently many of these individuals have been given an additional three years of schooling and have been awarded an M.D. degree. I am indebted to H. L. Farrior, M.D., of Shelby, North Carolina, who formerly practiced in the Congo, for advice concerning the status of these health care professionals.

## DEAN'S REPORT:

# The Best

IN THE People's Republic of China, recently visited by my wife<sup>1</sup> they have shortened the standard medical school curriculum in the wake of criticisms during the Cultural Revolution instigated by the Red Guard<sup>2,3</sup>. The Revolutionary Committee of the Shanghai First Medical College stated that the curriculum was "decayed and time-worn" and "copied from capitalist and revisionist countries."

....."The curriculum required students to study as long as six or even eight years, but after graduation they were unable to treat independently even the most frequently encountered diseases. Leaving the big hospital, with its laboratories and modern equipment, they found themselves at their wits' end<sup>4</sup>." Since the Cultural Revolution, the pattern of medical education has been experimentally reduced to three years or less, and the content has been changed "by eliminating the irrelevant and the redundant, by combining the theoretical with the practical, and by using the 'three-in-one principle' of teachers teach students, students teach teachers, and students teach students"<sup>2</sup>. (Le plus le changer, le plus le meme chose!) In addition, selection of medical students was altered so that students are now elected by their fellow workers in the communes and factories, giving preference to "barefoot doctors" and other health workers, with prior evaluation of their politics and some commitment that the student will later return to the locale of origin (not unlike a bill now before the Alabama legislature, which would give each state representative a position to fill in the state medical schools' entering classes annually).

European medical schools generally follow a course of six years of study following graduation from the gymnasium or lycee (roughly equivalent to our junior college) with admission of large numbers of entering students, then weeding out perhaps 90% by failure to promote during the years prior to graduation. In recent years there has been a change toward the United States model with more restrictive admissions policies. The European content and emphasis are much like ours.

IN THIS COUNTRY some schools are experimenting with extreme models. For example, the medical schools of UMKC (University of Missouri-Kansas City) has a six-year course, but accepts students directly out of high school<sup>5</sup>. There are only a few full-time faculty, called "docents" rather than "professors, associate professors," etc., and the curriculum is "totally mixed." By this is meant that entering students are immediately presented with patients, clinics, and clinical problems, and the humanities and non-medical courses may be taken very late during the six-year course. For example, one of the top students receiving his M.D. this year took astronomy, philosophy,

# Education

and classical guitar during the last trimester immediately before receiving the M.D. degree<sup>6</sup>

Thus, we return to the question: What's the best education for a physician?

It is very likely that competent physicians can be prepared to deliver quality medical care by a wide variety of extremely diverse methods. This does not answer the question of, "What's best?," and perhaps we should not attempt to answer it definitively or legislatively. However, the M.D. degree in the United States is taken to mean two things: (1) that the physician has passed certain examinations (e.g., the National Boards or FLEX), and (2) that the student physician has "run through" (Latin: *currere*, to run) a particular curriculum guaranteed to expose him to those aspects of the education which cannot be adequately tested by written or oral examination. Thus, society at large, and most educators, are unwilling to place all their eggs in the one basket of written and/or oral examinations but also demand that the student be exposed to a course of study<sup>7</sup>. This is why schools exist and why they must be accredited, if we are to place any credence in the credential of the M.D. degree. Otherwise, students could "read medicine" like students used to "read law", then take an examination and enter practice.

**THE AMERICAN** public does not at present accept the concept of "reading medicine" or of preceptorial training. Indeed, despite the best efforts of the FTC (Fair Trade Commission) and GAO (Government Accounting Office), both of which are currently investigating accreditation as a professional monopoly and means of restricting production of physicians, the trend in the United States is exactly in the opposite direction—toward even more accrediting and credentialing (e.g., recertification and relicensure for physicians, as well as other professionals).

The Goals and Priorities of the University of Alabama School of Medicine have recently been published<sup>8</sup>. They are as follows:

- (1) **Care of the patient as the primary value:** To instill in the student a value system oriented to the care of the patient. To instill a respect for the dignity and integrity of man, whatever his status in life, his possession or lack of power, the race, sex, creed, or locus of origin. To instill and nurture in the physician a sympathetic desire for the patient to be well and healthy. To attempt to guarantee that the physician will always place a high value on his own trustworthiness as a physician to the individual patient.
- (2) **Emphasis on biology:** To educate the student to be a supremely capable expert in human biology, giving recognition to the fundamentally biological nature of

the human organism. This should not preclude an adequate appreciation of the unique place of reason and spirit in man and of the complexities and problems of human organizations and their impact on health, especially the family and the organization of a health care delivery. However, in a medical education, human biology must remain paramount.

- (3) **Physician as a scholar:** To make natural the continuing education of the student after he has graduated from medical school, especially and most essentially in medicine itself, but in other forms of intellectual activity as well, for the maintenance and improvement of skills and continued growth of the whole physician.

The place of the faculty in this endeavor is at least four-fold: example, motivation, facilities, and guidance:

- (1) **Example:** Children copy their parents in a very detailed manner, younger students imitate many of the characteristics and attitudes of their teachers, and medical students imitate their professors to a great degree. Providing good role models for students to emulate is a function of the school.
- (2) **Motivation:** This can be both positive (rewards) and negative (punishments). Formal tests and evaluations (i.e., grades) and adequate feedback to the students are helpful as intermediate level motivations, in addition to the ultimate motivators of passing or failing. To attempt to conduct a course of education without these is both unwise and unfair to the students.
- (3) **Facilitation:** Providing laboratories, lecture material, audiovisual aids, computer assisted instruction, biological material for dissection, the opportunity to participate, under proper supervision, in the clinical care of patients, and similar aids to learning is a traditional and necessary function of the school.
- (4) **Guidance:** Orientation of the student directing him to aids, helping determine relative importance, and helping weed out the unimportant are all essential faculty activities.

In addition, other aspects of medical education currently emphasized in Birmingham have been discussed in prior articles in this *Journal*, particularly the matter of adequate understanding of disease.<sup>9,10</sup>

In addition to the requirements of accreditation and expectations of people seeking medical help from our graduates in years to come, there is the problem of "upward pressure" from other health professions, even including chiropractic. Current requirements are shown in Table 1.

Not only are the numbers of schools and numbers of students in the schools of other professions increasing, but in addition, the other professions are attempting to be more encompassing and intensive in their programs and more rigorous in their educational standards. Thus, recent requirements for accreditation recommend that pharmacy schools include physical diagnosis in the curriculum! While I personally believe accreditation is desirable, and indeed inevitable, there is no doubt that the United States is in the midst of a tumult of self-aggrandizing accreditation by



professions which is little more than a major territorial riot among the health professions. For medicine or medical schools to simply stand aloof during this period of American health education would be folly. The "health care team" must have a leader and will have one, and it is up to the medical schools to assure that the physician is sufficiently trained to be the undisputed, if not unquestioned, leader.

THUS, there are two reasons for maintaining high, rigorous academic standards in medical schools today, one intrinsic and one extrinsic to medicine itself. The intrinsic one is simply to assure the public that the M.D. degree means something substantial and trustworthy rather than being the meaningless scrap of paper it was prior to 1900 (or 1915 and 1920, when both medical schools in Alabama were closed because of lack of quality the one in Mobile and the one in Birmingham). The extrinsic reason is to assure that the physician will be "leader of the team" in fact as well as claim.

The "American health care system," all components taken together, does not know where it is going. We are

trying to settle the "little," subsidiary questions without first resolving the major, fundamental issues. The kind of education we give the various health care professions will be crucial in determining the kind of health care system America has in the future. But, according to an old saying, for the man who does not know where he is going, any road will do.

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CONTINUED ON PAGE 76

TABLE 1. EDUCATION IN THE HEALTH PROFESSIONS IN THE UNITED STATES, 1976

Discipline	Number of Schools in U.S.	College Baccalaureate Degree Usual Prior to Admission	Enrollment Currently Increasing	Doctorate Offered at Graduation	Duration of Training* (1)/(2)/(3)	Specialty Areas
1. <u>Medicine</u>	115	Almost 100%	Yes, at least thru 1980	Yes; 100% (except 1 2-yr. sch.)	1-2/1-2/3-7+	23 major specialties 65 certified areas
2. <u>Osteopathy</u>	10	Almost 100%	Yes, at least thru 1980	Yes (D.O.)	1-2/1-2/1-7	None
3. <u>Dentistry</u>	59	78.5% (includes 6% with masters or Ph.D.)	Yes, at least thru 1980	Yes (18=D.M.D.) (41=D.D.S.)	1-2/1-2/0-3	8 major specialties
4. <u>Nursing</u>	1,360	Complex; few have had B.S. pre-N. sch., but increasing now; ?10."	Yes	No; but 12 sch. offer Ph.D. & incr. grads. taking it; more sch. to offer it soon	0-2/1-5/0-1	Specialty certifying councils being developed
5. <u>Veterinary Medicine</u>	19	Almost 50%; often enter after 2 yrs. college	Yes	Yes (18=D.V.M.) (1=V.M.D.)	1-2/2-3/0-3	10 Specialty boards
6. <u>Optometry</u>	13	76% and increasing annually	Yes	Yes (O.D.)	2/2/0+	None
7. <u>Pharmacy</u>	72	Less than 1/3; usually enter after high sch.	Yes	Yes in 21 sch. (Pharm. D.)	4/1-2/1-2	Development of specialties in clinical ph., radioph., etc. being discussed
8. <u>Podiatry</u>	5	90%	Yes	Yes (D.P.M.)	2/2/1-3	None
9. <u>Chiropractic</u>	8	About 50%	Yes	Yes (D.C.)	2/2/0+	None***

\*Duration of training is approximate and given in "years," which may be from 8 to 12 months each: 1 = basic science; 2 = pre-degree supervised clinical experience; 3 = post-degree supervised clinical experience.

0+Residency programs in planning or developmental stage.

\*\*Number of schools offering Pharm. D. is increasing rapidly.

\*\*\*Official accrediting body for chiropractic was first recognized by the federal government in August, 1974.



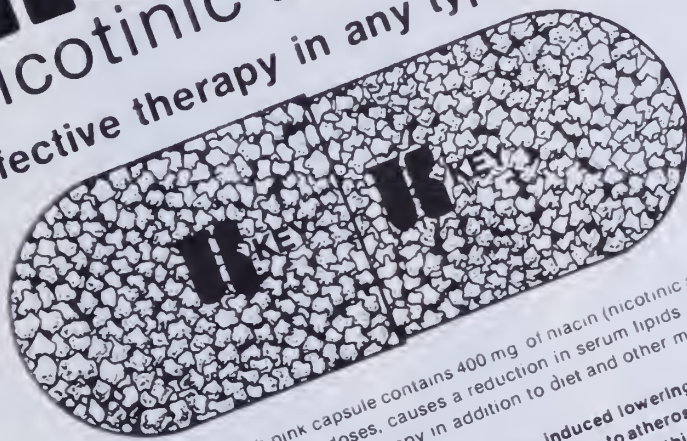
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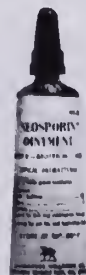
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### new members

#### BALDWIN COUNTY

JONES, Liston Stephen, Jr., b 46, mc Fla. 72, recip. Fla. 73, 505 North Section Street, Fairhope 36532. I.

#### JEFFERSON COUNTY

BEARDEN, Winford Eugene, b 43, mc Ala. 74, recip. NBME 75, Lloyd Noland Hospital, Fairfield 35064. ObG. DANIEL, William Andrew, III, b 40, mc Tulane 67, recip. La. 67, 2660 10th Avenue, South, Suite 636, Birmingham 35205. U-S.

GASKIN, Thomas Allen, b 42, mc Ala. 67, recip. NBME 68, 801 Princeton Avenue, SW, Suite 229, Birmingham 35211. S.

HUTCHINS, Kelly Eugene, b 34, mc Ala. 74, recip. Miss. 74, Baptist Medical Center, Montclair, Birmingham 35213. S.

MORRIS, Robert Edward, b 44, mc Ala. 73, recip. La. 74, Eye Foundation Hospital, Birmingham 35233. Path.

OWENS, Dannis Prayton, b 46, mc Ala. 72, recip. NBME 73, Lloyd Noland Hospital, Fairfield 35064. S.

PRINCE, Daniel Scott, b 44, mc Univ. of Ala. in Birmingham 70, recip. NBME 71, 1500 6th Avenue, South, Birmingham 35233. I-R.

ROLLINS, Virgil Warren, b 46, mc Ala. 72, recip. NBME 74, 601 Morris Blvd., Birmingham 35209. Otorhinolaryngology.

VIAR, William Nathan, Jr., b 44, mc Ala. 70, recip. NBME 71, 1316 South 19th St., Birmingham 35205. S.

#### LAUDERDALE COUNTY

JAMIESON, Andrew D., b 43, mc Ala. 72, recip. NBME 73, 128 Creek Wood Circle Florence, 35630.

#### LEE COUNTY

BURNEY, Robert Earle, II, b 32, mc Miami 60, recip. Fla. 61, 1910 Waverly Parkway, Opelika 36801. NS.

HELLER, Edgar Elwood, b 22, mc Bowman Gray 50, recip. Minn. 50, 862 Cary Drive, Auburn 36830.

#### MADISON COUNTY

BOONE, Marshall Nolan, Jr., b 42, mc Ala. 75, recip. NBME 76, 1804 Pettres Cir., Huntsville 35811.

BRADFORD, Charles Raymond, b 50, mc Ala. 75, Limited Lic. 76, UAH,

201 Governors Dr., SW, Huntsville 35801. FP.

BURCHAM, James Russell, III, b 49, mc Missouri 75, Limited Lic. 76, UAH, 201 Governors Dr., SW, Huntsville 35801. FP.

BUTLER, Daniel Forrest, b 50, mc Kentucky 75, Limited Lic. 76, UAH, 201 Governors Drive, SW, Huntsville 35801. FP.

EISENFELD, Leonard Irwin, b 46, mc Yale 71, recip. NBME 72, Cedar South Apts., 3613-B, Snap Brook Road, Birmingham 35216. Pd.

FABIANKE, Raynard George, b 48, mc Texas 75, Limited Lic. 76, UAH, 201 Governors Drive, SW, Huntsville 35801. FP.

FOSTER, James Moore, b 43, mc Vanderbilt 69, recip. Tenn. 69, 805 Fackler Street, Huntsville 35801. Anes.

GRAHAM, Jerry Michael, b 44, mc Louisville 75, recip. NBME 76, East Madison Shopping Center, Madison 35758. FP.

GRIFFITH, Thomas Harris, b 41, mc LSU 66, recip. La. 66, 930 Franklin Street, Huntsville 35801. U.

HINTON, Benjamin Franklin, b 20, mc Ala. 53, recip. U. S. Navy 53, 5716 Jones Valley Drive, Huntsville 35801. Pd.

McCAULEY, David Richard, b 48, mc Tenn. 73, recip. Tenn. 74, UAH, 201 Governors Dr., SW, Huntsville 35801. FP.

NORMAN, Victor Dawson, b 50, mc Ala. 75, Limited Lic. 76, UAH, Governors Dr., SW, Huntsville 35801. FP.

PADOVE, Stuart Jay, b 47, mc Ga. 72, recip. Ga. 73, 3555 Crowell Circle, Redstone Arsenal 35809. I.

PEGUES, Herbert Ullmer, II, b 49, mc Ill. 75, recip. NBME 76, UAH, 201 Governors Dr., SW, Huntsville 35801. FP.

SHASTEEN, William Johnson, b 40, mc Vanderbilt 66, recip. NBME 67, 101 Sivley Rd., Huntsville 35801. Path.

SPRATLING, Larry, b 47, mc Tulane 72, recip. La. 72, 344 Crowell Circle, Huntsville 35801. I.

WHITE, Joe Michael, b 48, mc Texas Southwestern 75, Limited Lic. 76,

UAH, 201 Governors Dr., SW, HUNTSVILLE 35801. FP.

WILLIAMS, Tony L., b 42, mc Ala. 75, Limited Lic. 76, UAH, 201 Governors Dr., SW, Huntsville 35801. FP.

YOUNG, Charles Garnett, Jr., b 49, mc Kent 75, Limited Lic. 76, UAH, 201 Governors Dr., SW, Huntsville 35801. FP.

#### MOBILE COUNTY

FORE, David Lawson, b 41, mc Ill. 67, recip. NBME 71, 424 Carlyle Way, North, Apt. 425, Mobile 36609. R.

#### TUSCALOOSA COUNTY

ANDERSON, Russell Lee, b 36, mc Kentucky 69, recip. Kentucky 70, 700 University Blvd., Tuscaloosa 35401. FP.

FARMER, Thomas Calhoun, b 46, mc Ala. 71, sb 72, P. O. Box 6291, University 35486. FP.

RATCLIFFE, Alfred Anderson, Jr., b 43, mc Va. 69, recip. Va. 69, P. O. Box 6291, University 35486. FP.

SENG, Barry S., b 23, mc Northwestern 49, recip. Ill. 49, P. O. Box 6291, University 35486. FP.

STUNTZ, Richard Clark, b 21, mc Vanderbilt 50, recip. Tenn. 51, P. O. Box 6291, University 35486.

### deceased

#### JEFFERSON COUNTY

SINIARD, Emmett C., 6/28/76.

### reinstated

#### MONTGOMERY COUNTY

THOMAS, Marcus Clay, b 35, mc Tulane 60, recip. La. 66, 750 Washington Avenue, Montgomery 36104 R-Pd.

### removed

#### COLBERT COUNTY

SOCKWELL, Glen D., Removed.

#### ETOWAH COUNTY

BASS, Robert W., and PHLEGAR Robert F., Removed.

#### HENRY COUNTY

MORRIS, Jesse E., Jr., Removed.

#### LAMAR COUNTY

MIZE, John R., Removed.

#### LEE COUNTY

WELDON, Howard S., Removed.

## **LIMESTONE COUNTY**

HOLT, Douglas C., Removed.

## **MACON COUNTY**

HOPPER, Cornelius L., and THOMPSON, Daniel J., Removed.

## **MADISON COUNTY**

BEDNEY, Donald L., MCGHEE, Thomas F., Jr., and RHYNE, Joseph A., III, Removed.

## **MARSHALL COUNTY**

CALVERT, Francis N., and ROPER, Robert R., Removed.

## **MORGAN COUNTY**

BARRETT, Maurice E., and ROYER, William A., Removed.

## **TALLAPOOSA COUNTY**

CARPENTER, Arthur E., Jr., Removed.

## **TUSCALOOSA COUNTY**

ROSE, Marilyn J., Removed.

## **new phone numbers**

ANDERSON, R. L., Tuscaloosa, 553-3985.

BEARDEN, W. E., Jefferson, 785-2121.

BRADFORD, C. R., Madison, 536-5511.

BOONE, M. N., Jr., Madison, 534-4686.

BURCHAM, J. R., III, Madison, 536-5511.

BURNEY, R. E., II, Lee, 749-4226.

BUTLER, D. F., Madison, 536-5511.

DANIEL, W. A., III, Jefferson, 933-8446.

DAVIS, J. W., Cullman, 739-2885.

EISENFELD, L. I., Madison, 837-6686.

FABIANKE, R. G., Madison, 536-5511.

FORE, D. L., Mobile, 343-0826.

FOSTER, J. M., Madison, 539-4992.

GRAHAM, J. M., Madison, 536-5511.

GRIFFITH, T. H., Madison, 533-6608.

HELLER, E. E., Lee, 821-2630.

HINTON, B. F., Madison, 881-4744.

HUTCHINS, K. E., Jefferson, 591-4000.

JAMIESON, A. D., Lauderdale, 767-1696.

McCAULEY, D. R., Madison, 536-5511.

MORRIS, R. E., Jefferson, 933-8251.

NORMAN, V. D., Madison, 536-5511.

OWENS, D. P., Jefferson, 785-2121.

PADOVE, S. J., Madison, 876-3784.  
PEGUES, H. U., II, Madison, 536-5511.

PRINCE, D. S., Jefferson, 933-7081.  
RATCLIFFE, A. A., Tuscaloosa, 556-3274.

RODDAM, R. F., Jefferson, 934-2200.  
ROLLINS, V. W., Jefferson, 942-4136.

SENG, B. S., Tuscaloosa, 556-1160.

SHASTEEN, W. J., Madison, 539-9411.

SPRATLING, Larry, Madison, 837-8032.

STUNTZ, R. C., Tuscaloosa, 339-3933.

THOMAS, M. C., Montgomery, 281-1179.

VIAR, W. N., Jr., Jefferson, 933-2000.

WHITE, J. M., Madison, 536-5511.

WILLIAMS, T. L., Madison, 536-5511.

YOUNG, C. G., Jr., Madison, 536-5511.

## **address changes**

### **COVINGTON COUNTY**

LEE, Aubrey B., Present Opp to P. O. Box 329, Opp 36467.

MACLENNAN, Edward R., Present Opp to P. O. Drawer 540, Opp 36467.

### **JEFFERSON COUNTY**

AMATO, Simone J., Present Birmingham to Lloyd Noland Hospital, P. O. Box 538, Fairfield 35064.

ERNST, Frederick W., Present Birmingham to Baptist Medical Center, Montclair, 800 Montclair Road, Birmingham 35205.

NARAMORE, Malta L., Jr., Present Birmingham to 2018 Brookwood Medical Center Drive, Suite 211, Birmingham 35209.

PEINHARDT, William F., Present Birmingham to 404 Arnold Street, Cullman 35058.

SABISTON, Walter R., Present Birmingham to Kinston Clinic, Suite 9, Kinston, North Carolina 28501.

TILLER, Mary J. B., Present Birmingham to P. O. Box 2646, 1912 South 8th Ave., Birmingham 35202.

WAINWRIGHT, Samuel P., Present Birmingham to 1705 Del Rio Terrace, Dothan, 36301.

### **LAUDERDALE COUNTY**

SIMPSON, Wyatt C., Jr., Present Knoxville, Tenn., to 15 Skypark Terrace, Route 7, Florence 35630.

### **MOBILE COUNTY**

JOHNSON, Abel L., Present Mobile to 133 Louiselle Street, Mobile 36607.

MANSON, James E., Present Mobile to 133 Louiselle Street, Mobile 36607.

### **MONTGOMERY COUNTY**

DORROUGH, Robert L., Present Montgomery to 2055 Normandie Drive, Suite E, Montgomery 36111.

BROWN, Harold W., Present Montgomery to 2055 Normandie Drive, Suite 314, Montgomery 36111.

YOW, John S., Jr., Present Montgomery to 2055 Normandie Drive, Suite 314, Montgomery 36111.

### **TUSCALOOSA COUNTY**

TYLER, Louis I., Present Tuscaloosa to P. O. Box 1730, Tuscaloosa 35401.

## **Federal Tax Dates**

### **September**

9. Semi-monthly excise taxes deposit due (IRS Form 504). (See January 9).
15. Third quarter installment of 1976 estimated tax due from individuals on calendar year basis. Amended declaration (IRS Form 1040-ES) may be filed at this time. (See April 15).
15. Deposit of third quarterly installment of estimated 1976 corporation income tax. Amount to be paid is 25% of estimated tax;

- if the requirements for the deposit are first met after May and before September 1, 50% of the estimated tax must be deposited. (See IRS Form 1120W). Deposit of fiscal year corporation due by 15th day of 9th month of fiscal year.
24. Semi-monthly excise taxes deposit due (IRS Form 504). (See January 9).
30. Monthly Excise Taxes deposit due (IRS Form 504).



# Roster Supplement—August

## new members

### DALLAS COUNTY

OKOYE, Chudy Nathaniel, b 42, mc Emory 71, recip. Ga. 75, Good Samaritan Hospital, 1107 Voeglin Ave., Selma 36701. S.

### LAUDERDALE COUNTY

SIMPSON, Wyatt Collier, Jr., b 38, mc Ala. 72, recip. NBME 73, C/O University of Tennessee, 1924 Alcoa Highway, Knoxville, Tennessee 37920.

### MONTGOMERY COUNTY

HEREDIA, Anibal Froilan, b 36, mc San Marcos, Peru 65, recip. Ohio 73, 3015 Atlanta Highway, Montgomery, 36109. I.

## members reinstated

### MOBILE COUNTY

COWDEN, Robert Wilson, b 19, mc Ala. 50, sb 51, Star Route, Box 6, New Town, North Dakota 58763. I.

## new phone numbers

BOUDREAU, Floyd T., Mobile, 433-3511; DOWDY, Elizabeth G., Jefferson, 933-9211; HARRIS, E. Crampton, Mobile, 476-5050; HEREDIA, Anibal F., Montgomery, 279-9255; MIDDLETON, Malcolm D., Mobile, 433-1872; PITTS, William R., Jefferson, 674-6462; WHITE, Robert L., Mobile, 433-3663.

## zip code changes

### MOBILE COUNTY

HARRIS, Crampton, Jr., present 36604 to 36607.  
RUTLEDGE, Guy L., Jr., present 36604 to 36607.  
TAYLOR, Burt F., present 36604 to 36607.

## specialty changes

### MOBILE COUNTY

RICH, Gary M.—Internal Medicine and Cardiology.

### JEFFERSON COUNTY

HOLCOMB, M. Clifford,  
— Anesthesiology

## listing changes

### JEFFERSON COUNTY

PEDERSEN, Arthur Morris

## transferred

### MOBILE COUNTY

MIDDLETON, Malcolm D., 1564 Center Street, Mobile 36604. From Jefferson County Medical Society.

### MONTGOMERY COUNTY

### MONTGOMERY COUNTY

CHASTAIN, Truman L., P. O. Box 11142, Montgomery 36111. From Jefferson County Medical Society.

### MORGAN COUNTY

MEYER, isidore S., Pineview Hospital, Box 31, Hartselle 35640. From Franklin County Medical Society.

## deceased

### ETOWAH COUNTY

MORGAN, James O., Sr., 6/7//76

### FRANKLIN COUNTY

CARRIER, Marshall H., 11/3/75

### JEFFERSON COUNTY

CUNNINGHAM, William Aura, 8/75

MORGAN, Jean H., 3/25/76

### MACON COUNTY

CAMPBELL, Thomas M., Jr., 6/3/76

## removed

### DALLAS COUNTY

HOWARD, Jesse J., Removed.

### TALLAPOOSA COUNTY

MICHAELS, Lawrence, Removed.

## address changes

### BALDWIN COUNTY

COSTARELLA, Anthony Richard, present Pensacola, Fla., to 2085 Washington Creek Lane, Centerville, Ohio 45459.

### CLAY COUNTY

RUSH, William Dwain, present Lineville to Rt. 2, Box 183, Lineville 36266.

### CONECUH COUNTY

DUNHAM, William K., present Evergreen to 110 Riverbend Drive, No. 103 Riverbend Apts., Mobile 36605.

### JACKSON COUNTY

HOOD, Charles E., present Scottsboro to 809 East Laurel Street, Scottsboro 35768.

### JEFFERSON COUNTY

CONVERSE, George M., present Birmingham to Lloyd Noland Foundation, Fairfield 35064.

COSBY, Joseph C., present Birmingham to P. O. Box 26056, Huntsville 35801.

FALLETTA, Gerald P., present Birmingham to 2018 Brookwood Medical Center Dr., Suite 210, Birmingham 35209.

GOLDSTEIN, Allan R., present Birmingham to Professional Building, Suite 517, 800 Montclair Road, Birmingham 35213.

LEWIS, Irwin, present Birmingham to Brookwood Professional Building, Suite 300, 2018 Brookwood Medical Center Drive, Birmingham 35209.

LOCHRIDGE, Stanley K., present Birmingham to 1825 Hafor Drive, Iowa City, Iowa 52240.

McCOY, Ronald C., present Bessemer to 1609 Colesbury Circle, Bessemer 35020.

PITTS, William R., present Birmingham to 1539 South Main Street, Graysville 35073.

### LAUDERDALE COUNTY

BENNETT, Thomas L., present Florence to 725 North Wood Ave., Florence 35630.

DOSS, Wilford C., Jr., present Florence to 705 D. Raleigh Villas, Homewood 35209.

### LEE COUNTY

ROBERTS, E. Vann, present Opelika to 579 South Gay, Auburn 36830.

### MOBILE COUNTY

FELLERS, Paul H., Jr., present Mobile to P. O. Drawer 969, Thomas Hospital — Ingleside Entrance, Fairhope 36532.  
HENDERSON, Jesse L., present Mobile to 1403 Springhill Avenue, Mobile 36604.

HINTON, John L., present Mobile to 1501 Springhill Avenue, Mobile 36604.

MORTENSEN, Andreas V., present Mobile to 1501 Springhill Avenue, Mobile 36604.

O'Gwynn, J. Coleman, III, present Mobile to 1501 Springhill Avenue, Mobile 36604.

### MONTGOMERY COUNTY

SULLIVAN, John C., present Montgomery to 2055 Normandie Drive, Suite 108, Montgomery 36111.

### PIKE COUNTY

OGBURN, Charles L., Jr., present Ft. Rucker to 1005 Oaklawn Street, Birmingham 35216.

### RUSSELL COUNTY

NORGARD, Michael J., present Phenix City to 618 Hambaugh Avenue, Birmingham 35209.

### TUSCALOOSA COUNTY

LUMPKIN, Thomas R., present University to 700 University Blvd., East, Tuscaloosa 35401.

WHITLEY, John C., Jr., present Tuscaloosa to 111 South Main Avenue, Sylacauga 35150.



# CME CALENDAR

## AROUND THE STATE

### SEPTEMBER

- Sept. 4-5, AMA Regional CME Meeting, Jackson Hole, Wyoming.
- September 5-9, 1976, Estes Park Institute & the Southeastern Hospital Conference, "Regional Hospital Medical Staff Conference," Grove Park Inn - Great Smoky Mountains, Asheville, North Carolina, Category I credit available.
- Sept. 10-12, AMA Regional CME Meeting, Portsmouth, N.H.
- Sept. 11-12, AMA Regional CME Meeting, Milwaukee, Wisconsin.
- September 15-17, "Pulmonary Medicine—1976," American College of Chest Physicians, Keystone, Colorado. Approved for 16 hours AMA Category I credit. Contact: Dale E. Braddy, American College of Chest Physicians, 911 Busse Highway, Park Ridge, Illinois, 60068.
- September 17, 18, 19 — MASA's "Diabetes Mellitus" Conference, Lake Guntersville, Guntersville, Alabama. 10 AMA Category 1 Credit hours—10 AAFP Prescribed hours—10 hours, MASA's education requirement.
- Sept. 20-22, Am. Cancer Society—National Cancer Institute, St. Louis, Mo. Contact: Dr. Sidney L. Arje, 777 Third Ave., New York 10017.
- Sept. 20-23, Am. Academy of Family Physicians Annual Meeting, Boston, Mass. Contact: 1740 W. 92nd St., Kansas City, Mo. 64114.
- Sept. 20-23, Am. Hospital Assoc. Annual Meeting, Dallas, Texas. Contact: 840 N. Lake Shore Dr., Chicago 60611.
- September 26-October 2, Practicing Physicians Review Course, Kiawah Island Inn, South Carolina. Sponsored by the Medical University of South Carolina. Sponsored by the Medical University of South Carolina. 40 hours AAFP and AMA credit available. Contact: Division of Continuing Education, Medical University of South Carolina, 80 Barre Street, Charleston, South Carolina, 29401.
- September 29-October 2, "Acute Respiratory Failure: Mechanisms and Management," University of Michigan Medical School, Ann Arbor, Michigan. 28 hours AMA credit available. Contact: Dale E. Braddy, American College of Chest Physicians, 911 Busse Highway, Park Ridge, Illinois, 60068.
- September 26-October 2, Seventh Family Medicine Review, University of Kentucky Medical Center, Lexington, Kentucky. Contact: Frank R. Lemon, M.D., College of Medicine, University of Kentucky, Lexington, 40506.
- Sept. 29-Oct. 3, Southern Perinatal Assoc. Annual Meeting, Galatea Inn, Pensacola, Fla.

### OCTOBER

- October 1-3 "Diabetes Mellitus" Conference, Gulf Shores State Park, Gulf Shores, Alabama. 10 Category I and prescribed credit hours. Contact: MASA's Education Department.
- October 4-5, Tennessee Valley Medical Assembly, Read House, Chattanooga, Tennessee.
- October 6-9, "Neurosurgery, 1976," New York University Post-Graduate Medical School, New York, N.Y. Approved for 24 Category I credit hours, A.M.A. Contact: Office of Associate Dean, NYU Post-Graduate Medical School, 550 First Ave., New York, N.Y. 10016.
- October 7-9, "New Methods In Tumor Localization," University of Kentucky Medical Center, Lexington. Registration fee: \$150. Contact: Dr. Frank R. Lemon, Continuing Ed., College of Medicine, University of Kentucky, Lexington 40506.
- October 17-23, Seventh Family Medicine Review, University of Kentucky Medical Center, Lexington, Kentucky. Contact: Frank R. Lemon, M.D., College of Medicine, University of Kentucky, Lexington, 40506.

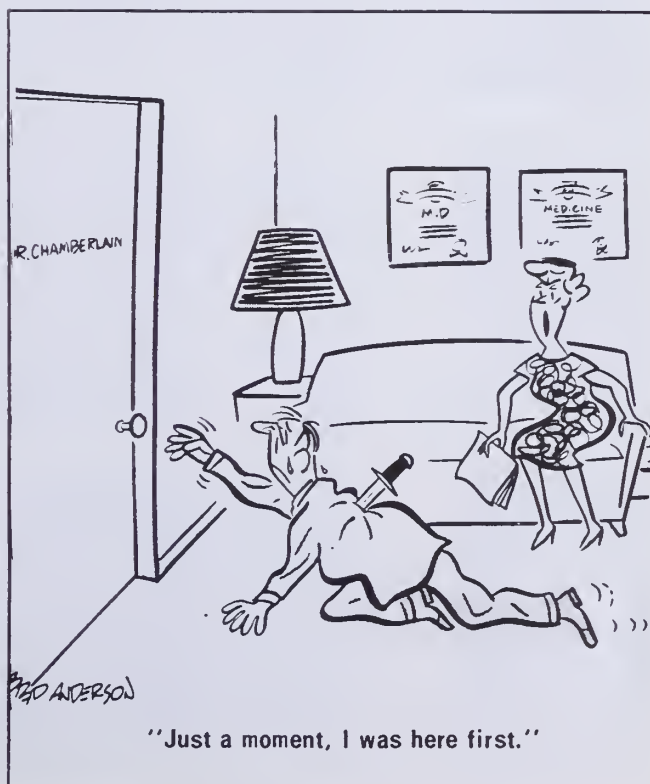
- October 18-20, "Cancer Concepts 1976," Physicians' Workshop, Glenstone Lodge, Gatlinburg, Tennessee. Sponsored by East Tenn. Cancer Research Center, Knoxville Academy of Medicine and University of Tenn. Center for the Health Sciences. Approved 12 hrs. Category I credit and AAFP credit. Contact: East Tenn. Cancer Research Center, Box 65, 1924 Alcoa Highway, Knoxville 37920.

- October 18-22, "General Diagnostic Radiology," Blitmore Hotel, New York City. Sponsored by New York Univ. Post-Graduate Medical School. Approved 30 hrs. Category I credit. Contact: Office of Assoc., Dean, New York Univ., Post-Graduate Medical School, 550 First Ave., New York, N.Y. 10016.

- October 29-30, Southeastern Regional Meeting, American College of Physicians, La. State University Medical Center, Shreveport, La. Info.: Marion D. Hargrove, Jr., M.D., F.A.C.P., P. O. Box 3932, Shreveport, La. 71130.

### NOVEMBER

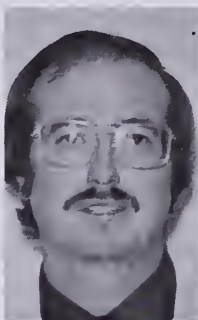
- November 1-6, "Course In Laryngology and Bronchoesophagology," Abraham Lincoln School of Medicine, Eye and Ear Infirmary, Chicago, Ill. Contact: Dept. of Otolaryngology, Eye and Ear Infirmary, 1855 West Taylor Street, Chicago 60612.
- November 7-10, 70th Annual Scientific Assembly, Southern Medical Association, The Rivergate, New Orleans, La. All scientific activities acceptable for hour-for-hour Category 1 Credit, A.M.A.: 24 Prescribed hours applied for, AAFP.
- November 15-18, 61st Annual Intern. Scientific Assembly of Interstate post graduate Medical Association, Marriott Hotel, Atlanta. Approved 21 of prescribed and 3 elective hrs. of AAFP credit and Category I credit. Contact: Dr. Alton Ochsner, Interstate Postgraduate Medical Assn., P. O. Box 1109, Madison, Wisconsin 53701.



## New physicians licensed to practice in Alabama



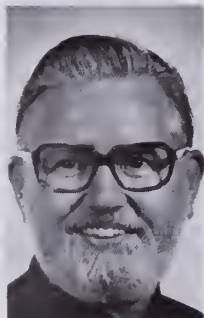
**Abu-Libdeh, Ali Jabr Hasan, M.D.**, Cario University Faculty of Medicine, 1969. Reciprocity with Georgia (FLEX). Specialty: Internal Medicine. Location: Fairfield.



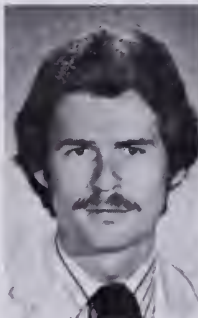
**Baker, Lawrence Vernon, M.D.**, University of Alabama School of Medicine, 1975. Reciprocity with National Board of Medical Examiners. Location: Birmingham.



**Boyd, Billy Willard, M.D.**, University of Alabama School of Medicine, 1975. Reciprocity with National Board of Medical Examiners. Location: Mobile.



**Adams, William Curtis, M.D.**, Temple University School of Medicine, 1947. Reciprocity with New Jersey. Specialty: Pediatrics. Location: Dothan.



**Bedwell, William Howard, M.D.**, University of Louisville School of Medicine, 1975. Reciprocity with National Board of Medical Examiners. Location: Birmingham.



**Boyette, David Morton, M.D.**, Medical College of Georgia, 1961. Reciprocity with Georgia. Specialty: Otolaryngology.



**Aksel, Sezer, M.D.**, Duke University School of Medicine, 1970. Reciprocity with National Board of Medical Examiners. Location: Mobile.



**Blackwell, Richard Edgar, M.D.**, Baylor College of Medicine, 1975. Reciprocity with Texas. Location: Birmingham.



**Braun, John Thomas, M.D.**, University of Louisville School of Medicine, 1975. Reciprocity with National Board of Medical Examiners. Location: Birmingham.



**Andrews, James Rheuben, M.D.**, LSU School of Medicine, 1967. Reciprocity with Louisiana. Specialty: Orthopaedic Surgery. Location: Phenix City.



**Boyd, Beverly Wallace, M.D.**, University of Alabama School of Medicine, 1976. Reciprocity with National Board of Medical Examiners. Location: Mobile.



**Bronstein, Alvin Charles, M.D.**, University of Kentucky College of Medicine, 1975. Reciprocity with National Board of Medical Examiners.



**Bryan, Stephen Ray, M.D.**, University of Utah College of Medicine, 1971. Reciprocity with National Board of Medical Examiners. Specialty: Neurology. Location: Montgomery.





**Burnette, Douglas George, Jr., M.D.,** University of Alabama School of Medicine, 1975. Reciprocity with National Board of Medical Examiners. Location: Birmingham.



**Crow, Charles B., III, M.D.,** University of Alabama School of Medicine, 1974. Reciprocity with National Board of Medical Examiners.



**DePoyster, James Harold, M.D.,** University of Mississippi School of Medicine, 1964. Reciprocity with Mississippi. Specialty: ENT. Location: Decatur.



**Chandler, Kenneth Eugene, M.D.,** University of Tennessee College of Medicine, 1968. Reciprocity with Tennessee. Specialty: General Surgery. Location: Decatur.



**Curtin, Richard Augustin, M.D.,** Georgetown University School of Medicine, 1967. Reciprocity with National Board of Medical Examiners. Specialty: General & Thoracic Surgery. Location: Anniston.



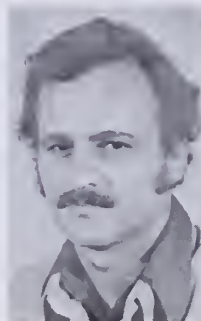
**Dismuke, Keith Alan, M.D.,** University of Alabama School of Medicine, 1974. Reciprocity with National Board of Medical Examiners. Location: Tuscaloosa.



**Cornelius, Donald Robert, M.D.,** University of Alabama School of Medicine, 1972. Reciprocity with National Board of Medical Examiners. Specialty: Psychiatry.



**Dawson, Terry Lee, M.D.,** University of Alabama School of Medicine, 1974. Reciprocity with National Board of Medical Examiners. Location: Birmingham.



**Dorand, Rodney Dixon, M.D.,** Jefferson Medical College, 1972. Reciprocity with National Board of Medical Examiners. Location: Birmingham.



**Cott, Abe Allan, M.D.,** Eclectic Medical College, 1936. Reciprocity with Ohio. Specialty: Psychiatry. Location: Birmingham.



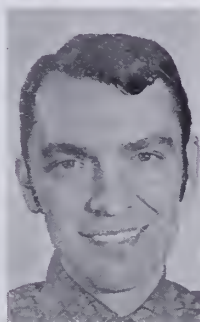
**DeLise, Charles Thomas, M.D.,** University of Louisville School of Medicine, 1970. Reciprocity with Kentucky. Specialty: Radiology.



**Doty, William Daniel, M.D.,** University of Alabama School of Medicine, 1975. Reciprocity with National Board of Medical Examiners. Location: Birmingham.



**Crawford, Raymond Shelton, III, M.D.,** University of Arkansas School of Medicine, 1971. Reciprocity with Arkansas. Specialty: General Surgery. Location: Montgomery.



**DeLong, James Francis, M.D.,** University of Cincinnati College of Medicine, 1972. Reciprocity with Ohio (FLEX). Specialty: Internal & Nuclear Medicine.

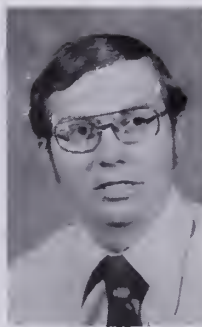


**Embry, Joseph Haden, M.D.,** University of Alabama School of Medicine, 1966. Reciprocity with Tennessee. Location: Birmingham.





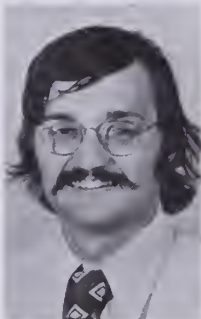
**Farquhar, Donald Summers, M.D.**, Boston University School of Medicine, 1975. Reciprocity with National Board of Medical Examiners. Location: Mobile.



**Griffin, Daniel Eugene, M.D.**, University of Tennessee College of Medicine, 1970. Reciprocity with Tennessee. Specialty: Internal Medicine. Location: Birmingham.



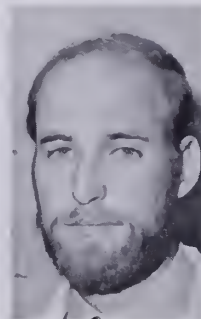
**Hataway, Clifford Jackson, M.D.**, University of Alabama School of Medicine, 1974. Reciprocity with National Board of Medical Examiners. Location: Birmingham.



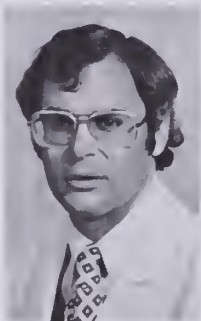
**Fritz, Herman Joseph, Jr., M.D.**, University of Alabama School of Medicine, 1974. Reciprocity with National Board of Medical Examiners. Location: Tuscaloosa.



**Grissett, Bryan Irving, III, M.D.**, University of Alabama School of Medicine, 1974. Reciprocity with National Board of Medical Examiners. Location: Birmingham.



**Hawley, William Kirkland, M.D.**, University of Alabama School of Medicine, 1974. Reciprocity with National Board of Medical Examiners. Location: Birmingham.



**Funt, Mark Ian, M.D.**, Emory University School of Medicine, 1973. Reciprocity with National Board of Medical Examiners.



**Grow, John Lockwood, M.D.**, John Hopkins University School of Medicine, 1950. Reciprocity with Maryland. Specialty: Surgery. Location: Anniston.



**Heilpern, Robert Henry, Jr., M.D.**, University of Alabama School of Medicine, 1974. Reciprocity with National Board of Medical Examiners. Location: Montgomery.



**Gober, John Rickey, M.D.**, University of Alabama School of Medicine, 1975. Reciprocity with National Board of Medical Examiners. Location: Tuscaloosa.



**Hackman, John Edward, M.D.**, University of Kentucky College of Medicine, 1970. Reciprocity with National Board of Medical Examiners. Specialty: Neurosurgery. Location: Montgomery.



**Herrick, Richard Thomas, M.D.**, West Virginia University School of Medicine, 1971. Reciprocity with West Virginia (FLEX). Specialty: Orthopaedic Surgery. Location: Auburn-Opelika.



**Graham, Jerry Michael, M.D.**, University of Louisville School of Medicine, 1975. Reciprocity with National Board of Medical Examiners. Location: Madison.



**Hart, James Edward, M.D.**, University of Washington School of Medicine, 1959. Reciprocity with Pennsylvania. Specialty: Pediatrics. Location: Maxwell AFB, Montgomery.



**Hill, Gregory Griffin, M.D.**, University of Alabama School of Medicine, 1975. Reciprocity with National Board of Medical Examiners.



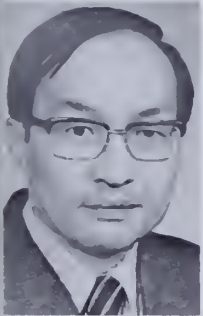
**Hughston, Jack Chandler, M.D.**, LSU School of Medicine, 1943. Reciprocity with Louisiana. Specialty: Orthopaedic Surgery.



**McKenzie, Elmer William, M.D.**, University of Tennessee College of Medicine, 1971. Reciprocity with Tennessee. Location: Mobile.



**Sullivan, John Burke, Jr., M.D.**, University of Alabama School of Medicine, 1974. Reciprocity with National Board of Medical Examiners. Location: Tuscaloosa.



**Hung, Hing Yee, M.D.**, Sian Medical College (China), 1961. Reciprocity with Florida. Specialty: Anatomic & Clinical Pathology. Location: Phenix City.



**Mosier, Willard Warren, M.D.**, University of Southern California School of Medicine, 1975. Reciprocity with National Board of Medical Examiners. Location: Birmingham.



**Sullivan, William Larry, M.D.**, University of Alabama School of Medicine, 1974. Reciprocity with National Board of Medical Examiners. Location: Tuscaloosa.



**Keller, John Albert, M.D.**, University of Alabama School of Medicine, 1974. Reciprocity with National Board of Medical Examiners. Location: Tuscaloosa.



**Nolin, William Barry, M.D.**, University of Alabama School of Medicine, 1975. Reciprocity with National Board of Medical Examiners. Location: Tuscaloosa.



**Weaver, Robert Michael, M.D.**, LSU School of Medicine, 1975. Reciprocity with Louisiana (FLEX).



**Laney, Charles Herbert, Jr., M.D.**, University of Mississippi School of Medicine, 1975. Reciprocity with Mississippi (FLEX). Location: Birmingham.



**Peters, Michael Wayne, M.D.**, University of Alabama School of Medicine, 1975. Reciprocity with National Board of Medical Examiners. Location: Tuscaloosa.



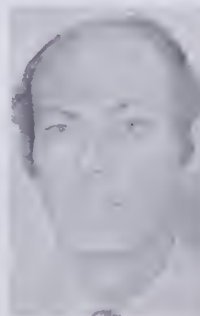
**Wells, Michael Aubrey, M.D.**, University of Alabama School of Medicine, 1975. Reciprocity with National Board of Medical Examiners. Location: Tuscaloosa.



**May, Richard Edwin, M.D.**, University of Alabama School of Medicine, 1975. Reciprocity with National Board of Medical Examiners. Location: Birmingham.



**Pfister, Roswell Robert, M.D.**, University of Michigan Medical School, 1962. Reciprocity with National Board of Medical Examiners. Specialty: Ophthalmology. Location: Birmingham.



**Young, Charles Garnett, Jr., M.D.**, University of Kentucky College of Medicine, 1975. Reciprocity with National Board of Medical Examiners.





## Physicians' placement service in Alabama

*The Medical Association of the State of Alabama maintains the Physicians' Placement as a service to the medical profession in the state of Alabama. Opportunities for practice in Alabama will be published and will be distributed to physicians making inquiry. Physicians wishing to establish practice are invited to submit a resume to be kept on file with the Association. For further information write to: Mr. Emmett Wyatt, Executive Assistant, Medical Association of the State of Alabama, P. O. -Box 1900-C, Montgomery, Alabama 36104, or Telephone 263-6441.*

### LOCATIONS WANTED

*(Physicians interested in locating in Alabama)*

**Family Practice:** Age 31; Howard University 1973; American Board eligible; seeking partnership, multi-specialty group, solo, single specialty group, or other. Available July 1976. LW-03522.

**General Practice:** Age 51; National University 1956; seeking solo, Emergency room or public health. LW-03372.

**Internal Medicine-Emergency Medicine:** Age 29, Medical College of Alabama 1972; National Board certified; American Board eligible; seeking emergency room, industrial, or multi-specialty group. LW - 03382

**Internal Medicine:** Age 27; University of Miami 1973; National Board certified; American Board eligible; seeking single specialty group, partnership, multi-specialty group, or solo. Available July 1976. LW - 02551

**Internal Medicine-Gastroenterology:** Age 33; Medical College of Virginia 1969; National Board certified; American Board eligible; seeking multi-specialty group, institutional, single specialty group, or partnership. Available August 1976. LW - 02599

**Internal Medicine-Gastroenterology:** Age 33; University of Iowa 1970; American Board eligible; seeking single specialty group, multi-specialty group, partnership. Available July 1976. LW - 01817

**Internal Medicine:** Age 32; University of Kentucky 1970; National Board certified; American Board eligible; seeking solo, partnership or research. Available July 1976. LW - 03320

**Obstetrics & Gynecology:** Age 34; University of Oregon 1968; American Board Eligible; seeking single specialty group. Available September 1976. LW-10.

**Obstetrics & Gynecology:** Age 32; Emory University 1970; American Board Eligible; seeking single specialty group, partnership or multi-specialty group. Available August 1976. LW-04049.

**Orthopedic Surgery:** Age 42; University of Washington 1962; American Board certified; seeking solo or limited partnership, preferably near Gulf Coast, 100,000 plus population. Available December 1976. LW-1.

**Orthopedic Surgery:** Age 36; University of Maryland

### LOCATIONS WANTED

**Locum Tenens** - Age 30; Georgetown University 1971, National Board, American Board eligible, interested in general medicine, pediatrics, or emergency room coverage. Available July 1 - Sept. 1, 1976, preferably in northeast Alabama, Anniston, Gadsden, or Birmingham area.

1966; National Board; American Board certified; seeking single specialty group, partnership, multi-specialty group or solo. Available August 1976. LW-03545.

**PATHOLOGY:** Age 29; Univ. of Michigan 1972; National Board; seeking Assistant or Associate or Institutional. Available December 1976. LW-02.

**SURGERY:** Age 41; Univ. of Ottawa 1963; American Board Certified; seeking Associate; Available September 1976. LW-03.

**Surgery/General Practice:** Age 31; University of Florida 1971; Will be American Board Eligible 1976; seeking partnership, single specialty group or multi-specialty group. Available July 1977. LW-01589.

**Surgery:** Age 38; Jefferson Medical College 1966; National Board certified; American Board certified; seeking single specialty group, partnership, multi-specialty group. Available August 1976. LW - 02968

**Surgery:** Age 34; Loyola University Stritch 1968; National Board certified; American Board eligible; seeking partnership, single specialty group, multi-specialty group, solo, or institutional. Available August 1976. LW - 02954

**Sophomore Medical Student** - age 22, interested in a town or hospital assisting with medical school costs in return for service there in general/family practice. Available 1980. LW-01.

### PHYSICIANS WANTED (Opportunities For Practice)

**Internist & Family Physician** - Opportunity available for an Internist and a Family Physician in a community ten miles north of Mobile. Excellent growth potential. Financial assistance available. Abundant outdoor activities (30 miles from gulf). PW-15.

**Physicians wanted (General Internal Medicine, Gastroenterologist, Dermatologist)** Trade area, 400,000 population. Population of town: 45,000, located in Northeast Alabama. Small town advantages with big city conveniences within hour's drive. Ground floor professional opportunity to join a group of internists in the development of programs in General Internal Medicine, medical specialties, and other disciplines appropriate for the establishment of a regional multispecialty health clinic. Financial arrangements negotiable. No investment necessary. Opportunity for partnership in two years. PW-8

A community with combined population of 10,000 located near Mobile, Alabama is seeking a **general practitioner**. Office space available with living quarters. Several churches and schools. PW-9



**ASSOCIATE UNIVERSITY PHYSICIAN**—Immediate opening. Staff of nine physicians. Comprehensive primary care for 16,000 students. Delightful University town of Tuscaloosa, Alabama. Competitive salary and excellent fringes, including liability insurance. Alabama license and BNDD required. PW-10.

**General Practitioner's** 2 family physicians wanted for general practice in a 64-bed hospital, located between 2 North Alabama towns (in the heart of the Tennessee Valley) with a trade population of 18,000. Office space available. Within 35 miles of large city. Large amount of industrial work in our area. PW-7

**WANTED—General Internist** or Subspecialist with interest in general medicine. University town, population approximately 60,000, to join 4 other internists in a multi-specialty clinic setting; 250-bed expanding general hospital, all-specialty coverage, office expansion in progress; attractive living area. PW-11

**EMERGENCY PHYSICIAN**—60,000 and over, fee for service, 45 hour week. paid basic malpractice, life and convention expenses; modern E.R., Urban advantages. PW-12.

Opportunity for **General Practitioner** in town of 3,000 population; trade area 16,000 population located in southeast Alabama, within short distance of city of 35,000 population where there are two hospitals. Located 85 miles from Gulf Coast beaches. Office space and equipment available. Last physician in town died two years ago. Industrial and farming area. Churches, schools and recreational activities. PW-2.

Opportunity for **General Practitioner** in town of 4,000 population; trade area 30,000 population located in southeast Alabama within short distance of hospitals. One g.p. and two dentists presently in the town. Agricultural and industrial area. PW-3.

**General Practitioner**—Opportunity in central Alabama town of 5,000 population, with a trade area of 30,000 population. Located 30 miles east of Montgomery, Alabama, and 28 miles west of Auburn University. Adjacent to Lake Martin. A new 77-bed hospital with a new Medical Arts Complex adjoining with office space available. Guaranteed income for a General Practitioner or Family Physician. PW-4.

**General Surgeon** needed in progressive rural community of about 1,000 people with trade area of 20,000, for 36-bed, joint commission approved hospital. Located in East Central Alabama, within 90 miles of Atlanta, 100 miles of Montgomery and Birmingham, and within 20 minutes of I-20. Guaranteed office space with rent to be worked out. Interested parties and their families are invited to visit with expenses paid. PW-13/1.

Full-time Faculty Position: Board Certified **Family Physician** to teach/practice in new and growing medical school. Teach family practice residents/medical students. Competitive salary/fringe benefits. An affirmative action/equal employment opportunity employer. PW-5.

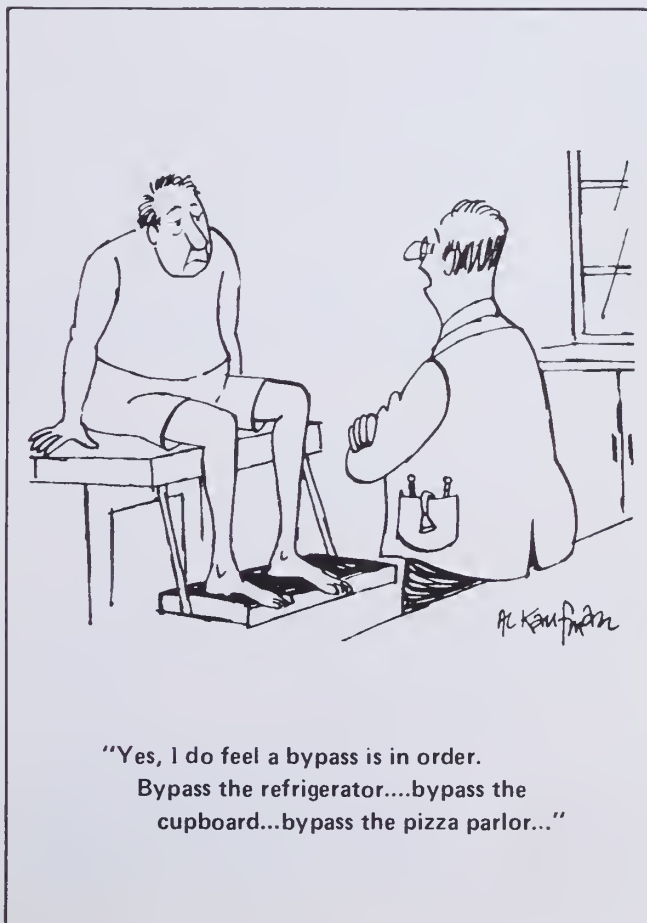
**GENERAL PRACTITIONER** needed in progressive rural community of about 1,000 people with trade area of 20,000, for 36 bed, joint commission approved hospital. Located in East Central Alabama, within 90 miles of

Atlanta, 100 miles of Montgomery and Birmingham, and within 20 minutes of I-20. Guaranteed office space with rent to be worked out. Interested parties and their families are invited to visit with expenses paid. PW-13

Tri-community area of approximately 20,000 population located in a tri-city area of approximately 200,000 population in south central Alabama is seeking a **General Practitioner**. Existing building available for renovating. Churches, schools, recreational facilities; also military privileges and services available in the area. PW-1.

**2 GENERAL PRACTITIONERS** wanted to locate in Central Alabama town with 17,000 population and a trade area of 35,000 population. Good 68 bed hospital, located near large city with specialty consultants available. Excellent fishing, camping, hunting, golf and schools. Excellent location to raise a family and practice medicine. Healthy stable economy. On call days only, nights and weekends covered. Office suites available rent free for the first 12 months, also other financial assistance available; including moving expenses, also interested parties can be offered invitations to visit with expenses paid. PW-11.

**General Surgeon** wanted. Tremendous opportunity to associate with General Surgeon in North Ala. Located in the heart of Tennessee Valley Mountain Lake Region. Small town setting, pop. 10,000. Two hospitals (300 beds), ten minutes from Decatur, pop. 45,000. Thirty minutes from Huntsville. Unlimited recreational activities; golf, tennis, sailing. Excellent school system and cultural activities. PW-12 ■



# Digest of actions—State Committee of Public Health

*The State Committee of Public Health at its regular meeting on July 21, 1976, took the following actions:*

- Approved Registrar and Deputy Registrars for Coffee, Escambia and Lauderdale Counties.
- Authorized Comprehensive Health Planning to reply to DHEW regarding credentialing for health manpower.
- Adopted the Developmental Disabilities Services Act Facilities Construction Plan for FY1976.
- Approved an amendment to the Alabama Master Hospital Plan to include the West Alabama Hospital, Inc., in Northport with a capacity of 103 beds and relocate the 103 program beds from the City of Tuscaloosa to the City of Northport.
- Amended the Master Hospital Plan to program a 125 bed psychiatric regional State facility in Decatur to serve residents from 18 north Alabama counties.
- Refused a proposal to change the Master Hospital Plan to add 16 additional beds to Thomasville Hospital based on failure to justify the need by utilization data.

## Digest of actions of the State Board of Censors

*Herewith is presented a Digest of Actions taken at the July 21 meeting of the State Board of Censors:*

- Approved Financial Statement for period ending June 30, 1976, which shows receipts of \$22,760.26 and disbursements of \$72,024.28.
- Voted to transfer surplus from Annual Session to the existing Annual Session reserve.
- Approved request for National Health Service Corps physician for Ragland, Alabama, with the stipulation that the physician be licensed to practice in Alabama.
- Approved request for National Health Service Corps physician for Pell City, Alabama, with the stipulation that the physician be licensed to practice in the State of Alabama.
- Approved request for signature of the CHAMPUS Contract for an additional year, and recommended that before the contract comes up for renewal, information be obtained in the event there is some reason for not signing the contract.
- Received as information Report of Communications Department.
- Received as information Status Report on State Health Legislation.
- Received as information Democratic Party Platform on Health Care.
- Received as information copy of letter which will go out to all physicians who are residents of Alabama and licensed to practice medicine in Alabama to solicit interest in a doctor-owned insurance company.
- Approved rate adjustment and two new provisions of Blue Cross-Blue Shield Physicians Medical Assistants group health insurance plan, and instructed the Council on Socio-Economics to study the market for an alternate plan.
- Received as information copy of program for MASA's Diabetes Mellitus Conference to be held August 6-7, 1976, in Dothan, Alabama.

- Approved the following projects for Hill-Burton funding (Federal): Geneva County Health Center \$60,000; Lee County Health Center, \$60,000; Jackson County Health Center \$48,000. Projects approved contingent upon completion of requirements including reviews.
- Approved the initial issuance of Assurance of Need for eight health facilities.
- Concurred in the favorable findings and recommendations for 1122 Assurance of Need Certificates for the following: a. West Alabama Hospital, Inc., Northport, 103 bed existing facility; b. Decatur Psychiatric Hospital, Decatur, (Former District TB Hospital) for a regional Psychiatric Hospital.
- Concurred in a recommendation for adverse findings and disapproval of Thomasville Hospital, Thomasville, for 16 bed addition as not consistent with the Master Hospital Plan.
- Received a CAT Scanner criteria memo for the Birmingham area for information and reference.
- Approved an editorial rewrite and new forms for the Chemical Test for Intoxication Program and authorized these forms to be printed and distributed as the current duly promulgated rules and regulations for alcohol determination.
- Approved Tuberculosis bed allocations to contract hospitals totaling 81 beds for the period of October 1, 1976, to September 30, 1977, contingent upon satisfactory appropriations.
- Approved the recommendations of the Hospital Licensure Advisory Board to down-grade five nursing homes from regular to temporary licenses.
- Approved the Hospital Licensure Advisory Board's recommendation granting a waiver to the J. Paul Jones Hospital on a door width in an ancillary service area.
- Approved the Hospital Licensure Advisory Board's recommendation for revocation of the Dothan Nursing Home, Inc., license and after receipt of a negotiated contract agreement for correction of deficiencies, set the hearing on this action for the September Committee meeting to allow time for correction of deficiencies as specified in the agreement.
- Approved five Medicaid Plan Amendments updating the text of the official Plan relating to Board action.
- Approved a prevailing charge level for FY1976 relating to the current fee screens of physicians.
- Received an oral report from the Council on Health Costs, Administration and Organization and welcomed Mr. Charles Aderholt of Fayette, Alabama, as the Chairman of this Council, who became a member of the State Committee of Public Health with his election since the last meeting. Mr. Aderholt is a consumer and became the first consumer member on the Committee.
- Was advised that in the suit against the Secretary of HEW by the State of Alabama regarding the location of Russell County, Alabama, in a Health Services Area will be considered by the three-judge panel including the Honorable Judges Varner, Johnson and Rives.
- Was advised that a National Planning meeting on Swine Influenza Immunizations was scheduled for July 22, 1976, in Atlanta and that plans are continuing to initiate this

CONTINUED ON PAGE 73



## Auxiliary

Mrs. George F. Scofield  
President



### Yes, Virginia— There Really Is An Auxiliary

IN my mailbox the other day, I found a strange little note. It was written in nice, neat handwriting and went something like this: "Dear Pat: I've been hearing about Medical Auxiliary ever since I moved to Alabama and yet I can't seem to find out what it is. Is there really such a group?" It was signed, "Virginia." Since there was no return address to answer her letter, I hope my reply in this journal will find her.

Dear Virginia,

There truly is an Auxiliary to the Medical Association of the State of Alabama and it is alive and well. It boasts 1678 members in 32 county auxiliaries. It is possible to be a Member-at-Large even if there is no auxiliary in your county. We publish a newsletter — *the AMASA News* — four times a year which keeps our members informed.

We have officers and chairmen which work with county presidents to help improve the health of our communities. We plan a Fall Workshop called "Focus on Family Fitness" to be in Birmingham, September 22 and 23.

**THIS IS THE** structure of Auxiliary, but far more important than organization is the spirit of Auxiliary. Auxiliary means friendship—a closeness which comes from working all day at a recycling center, breaking glass and stomping tin cans.

We staff bloodmobiles, check blood pressures, and serve coffee and donuts in a shopping mall to exhibitors at the Health Fairs. It means meeting and greeting spouses of medical students, interns and residents and letting them know that we need them in our activities.

Auxiliary means sharing needed items for patients at Bryce and Partlow, to brighten their days. It means sharing possessions with Guatemalan friends in time of disaster. It means sharing linens and supplies with those who minister to our communities in time of tornadoes and floods.

Auxiliary means finding a way to honor our doctors on their day, March 30. We plant a tree in a city park, place a piece of equipment in a hospital, entertain them with a party, or bring a speaker such as the doctor/governor of Indiana. February will be "See That Your Doctor Sweet-heart Has a Physical Check-Up Month", since often our doctors get so busy treating others that they neglect themselves.

**IT MEANS** distributing Health Careers posters and Self-Breast-Examination leaflets to lingerie departments. It means telling the story of VD, drug abuse, and non-smokers' rights. It means working for a coordinated Health Education program from kindergarten through twelfth grade. It means a county-wide "Save a Life" Clinic where life-saving techniques are taught.

Auxiliary means interest in legislation an "up on our toes" approach to the threats to medicine from all sides. It means supporting ALAPAC and AMPAC as we make a concerted effort for better legislation. It means going as a group to spend a Day in the Legislature. It means urging our doctor spouse to serve as the "Doctor of the Day" in Montgomery.

Auxiliary means fund raising—for AMA Education and Research Foundation as we support the future of medicine. It means buying watches and handpainted eyeglass lenses. It means Fashion Benefits and Tennis Tournaments and Antique Shows.

Can you forgive me if I brag a little? In Dallas in June at the AMA Auxiliary Annual Convention we learned that Auxiliaries raised this past year for AMAERF \$1,434,564.08. Alabama received two merit awards. One was for the largest amount of money raised in the southern region (one-fourth of the U.S.) with \$38,686.64 and another award for raising \$22.81 per member. My own county, Jefferson-Birmingham, received a county achievement award for raising the most money of any county in the nation with a membership of 351 to 500 members. We have 418 members. The only county who raised more than we did has 2,070 members — Los Angeles Co. and they raised \$17,777.01. Can you blame me for bragging? Our amount was \$17,762.85!!

**AUXILIARY** is as near to you as the nearest doctor's spouse. It doesn't take a crowd—though a crowd is fun! Come join us and see for yourself. Join us—we can do more together.

Love,  
Pat Scofield,  
President, AMASA

I hope Virginia's husband will share his copy of this journal with her. We need all the Virginias in Alabama to join with us and become a part of all our activities. Each county in Alabama could benefit health-wise from the joined hands and hearts of doctors and their spouses. Remember "Love is Something You DO." ■

Pres.—Mrs. George F. Scofield/Pres.-Elect—Mrs. John S. Taylor/First Vice-Pres.—Mrs. Aubrey Terry/NE Vice-Pres.—Mrs. Eugene H. Bradley/SE Vice-Pres.—Mrs. Rufus Lee/SW Vice Pres.—Mrs. William P. Basoon/NW Vice-Pres.—Mrs. Wilfred Yeargan/AMASA Editor—Mrs. William Smith.

# ALABAMA DEPARTMENT OF PUBLIC HEALTH:

## Bureau of Preventable Diseases

FREDERICK S. WOLF, M.D., DIRECTOR

### AVAILABILITY OF INFLUENZA VACCINES FOR PUBLIC USE

INFLUENZA vaccines will be made available to private physicians through Alabama's County Health Departments. It is now anticipated that both A/New Jersey/8/76 (Hsw1N1) and A/Victoria/3/76 vaccines will begin arriving in the state during the latter part of August.

The initial supply of vaccines will probably be limited in quantity, and therefore, must be distributed on that basis. Each County Health Department in the state will conduct an influenza campaign, free to the public, for a publicized period of time during the months of September and October, 1976.

The goal of this nation-wide program is to immunize the eligible population in a three-month period - September thru November, 1976. The nation has never attempted an immunization program of such scope and intensity. It will require a major effort by both the public and private sectors.

A **FEDERALLY** established informed consent procedure will be used by public health. Consent forms will also be provided to private physicians for their use in meeting vaccine accountability requirements. Each dose of this vaccine administered either publicly or privately must be accounted for by age of recipient. Federal guidelines also require that the vaccines must be receipted by the provider or an authorized representative and a statement must be signed that only the cost of vaccine administration can be charged to a recipient.

Two influenza vaccines will be made available through this program. A bivalent vaccine containing both A/New Jersey/8/76(Hsw1N1) and A/Victoria/3/76 antigens will be *only* recommended for persons over 65 or those with chronic cardiovascular, pulmonary, or metabolic disease. For the remainder of the eligible population, monovalent A/New Jersey/8/76(Hsw1N1) vaccine will be available.

The bivalent vaccine must be limited to the elderly and high-risk groups due to its shortness of supply. Required vaccine accountability will be monitored for any misuse.

**MINIMUM AGE** and dose recommendations for under 25-year-old recipients are now being established through extended field trials. This information should be available in the near future. Other questions remain to be answered and much remains to be done. Development of the necessary manpower, resources, and organization to carry out this undertaking is an immense task and requires unprecedented cooperation between public and private health care providers. It is an unexpected, but perhaps fitting challenge for this, our bicentennial.

### GONORRHEA—June 1976

Total Female Specimens	25,162
Positive Cultures	1,132
Positive	4.5%
Submitted from Private Practice	14,837
Positive Cultures	283
Positive	1.9%

### CURRENT MORBIDITY STATISTICS

	May	June	E.E.*
Tuberculosis	86	63	89
Syphilis	38	35	43
Gonorrhea	2,055	2,434	758
Chancroid	0	0	0
Typhoid fever	0	0	0
Salmonella	37	33	26
Undulant fever	1	1	0
Shigella	9	11	8
Ambic dysentery	0	0	0
Scarlet fever & strep. throat	650	428	366
Diphtheria	0	0	0
Whooping cough	0	0	3
Meningitis	10	10	5
Tularemia	0	0	0
Tetanus	0	0	0
Poliomyelitis	0	0	0
Encephalitis	1	1	0
Smallpox	0	0	0
Measles	0	0	8
German measles	0	1	8
Chickenpox	67	65	28
Mumps	55	53	50
Hepatitis	35	49	30
Typhus fever	0	0	0
Rocky Mt. spotted fever	0	1	1
Malaria	0	0	1
Rheumatic fever	2	4	11
Rheumatic heart	15	15	16
Influenza	217	61	20
Pneumonia	598	271	242
Rabies - Human cases	0	0	0
Pos. animal heads	3	3	0

As reported by physicians and including deaths not reported as cases. \*E.E. - The estimated expectancy represents the median incidence of the past nine years.

*DARKFIELD MICROSCOPY is available to physicians at no cost by calling 832-3205 collect at any time. A technician and equipment will be dispatched to your office.*



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and  
**THE NORTH FLORIDA REGIONAL MEDICAL FOUNDATION**  
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**"THE THIRD ANNUAL CARDIOVASCULAR SYMPOSIUM"**

**SEPTEMBER 9-10, 1976**

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**GAINESVILLE, FLORIDA**

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**Co-Directors: Luis J. Cintado, M.D.**

**Thomas D. Bartley, M.D.**

This symposium is designed to review and explore the diagnostic procedures and therapeutic modalities that are available for the detection and treatment of cardiovascular disease. A special evening session is devoted to the use and value of echocardiography. An outstanding faculty has been assembled for the symposium and the program should be of interest to all physicians taking care of patients with cardiac disease.

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**SPENCER B. KING, III, M.D.**

(Approval for credits for CE units has been requested from the AAFP, FMA, AACN and FNA.)

**HOTEL RESERVATIONS:** A block of rooms has been reserved at the Hilton Inn for symposium participants and reservations can be made through your local Hilton Hotel, the Hilton Reservation Service (toll free number listed in your local telephone directory) or by calling the Gainesville Hilton Inn direct, A.C. 904, 377-4000.

**RESERVATION FEES:**

**\$150. — all physicians**

**50. — paramedical personnel (nurses, technicians, etc.)**

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**MAIL TO:**

**Howard W. Ramsey, M.D.**

**Program Director**

**North Florida Regional Hospital**

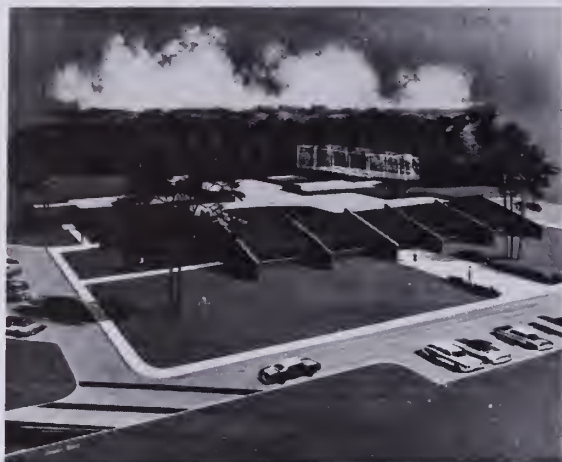
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**REGISTRATION IS LIMITED — REGISTER EARLY**

(Fees will be refunded for cancellations received no later than August 27th.)

For further information write to: Howard W. Ramsey, M.D., at the above address.



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 JOHN C. WICKS, M.D.  
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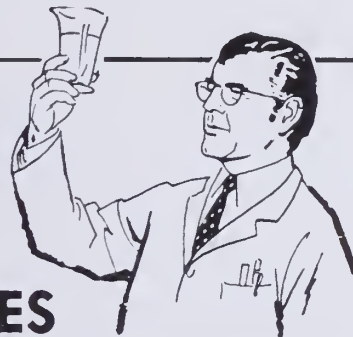


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# DELEGATES

Paul W. Burleson, M.D.  
Birmingham  
O. Emfinger, M.D.  
Union Springs  
W. E. White, M.D.  
Anniston

# Report Of The Alabama Delegates To The 125th Annual Convention Of The American Medical Association

**June 27 - July 1, 1976  
Dallas, Texas**



# ALTERNATES

E. B. Glenn, M.D.\*  
Birmingham  
Alfred Habeeb, M.D.  
Birmingham  
Julius Michaelson, M.D.  
Foley  
\*Absent

TO: Members of The Medical Association of The State of Alabama  
SUBJECT: Report of the 125th Annual Convention of the American Medical Association

Your Alabama Delegation, composed of its three delegates, three alternates, MASA President & President-Elect, and the Chairman of the State Board of Censors, attended the five day session in Dallas representing the Medical Association of the State of Alabama.

The opening session was convened on Sunday afternoon and was highlighted by an address by the retiring president of the AMA, Dr. Max Parrott. Another highlight, especially for Alabama, was the presentation of the Goldberger Award to Dr. Charles E. Butterworth, Jr., Professor of Pediatrics and Director of Nutrition, University of Alabama in Birmingham School of Medicine. A plaque and a \$1,000.00 stipend were presented to Dr. Butterworth for his outstanding work in the field of Clinical Nutrition.

Monday was reserved for Reference Committee meetings with each member of the Alabama delegation assigned a specific reference committee for monitoring the discussions of various resolutions from delegates and state associations and reports from the AMA Board of Trustees and AMA Councils. Early morning breakfast meetings were held on Monday, Tuesday and Wednesday by the Alabama Delegation to report back and to discuss committee reports, and to meet with and interview candidates for various elective offices.

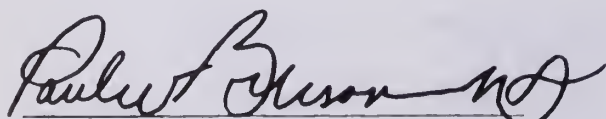
The House of Delegates reconvened on Tuesday to take up individually the written reports of the Reference Committees and discuss the issues raised in these reports. Wednesday was a continuation of the Reference Committee reports until mid-afternoon, at which time the House of Delegates recessed for the formal inauguration of the new president of the AMA, Dr. Richard Palmer, of Alexandria, Virginia.

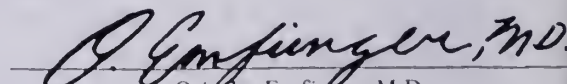
Thursday was election day for the offices of President-Elect, Vice-President, and membership of the AMA Board of Trustees and AMA Councils. Dr. John Budd of Cleveland, Ohio was elected President-Elect and Dr. Frances T. Holland of Tallahassee, Florida was elected Vice-President. Of special interest to the MASA, Dr. S. Richardson Hill, Jr., Vice President of Health Affairs, University of Alabama in Birmingham, was chosen by the House to fill a vacancy on the newly established AMA Council on Scientific Affairs, his new position being for a two year term. Dr. William Roper, a recent graduate of the UAB School of Medicine, and an outstanding honor student, who is presently completing a residency in Denver, Colorado, was elected as the Resident Member to the new Council on Scientific Affairs.

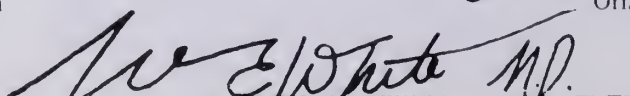
The House of Delegates reconvened on Thursday morning and continued its work with completion of Reference Committee reports, and adjourned at 1:30 p.m.

A summary of the actions of the House of Delegates is also herewith submitted.

Respectfully submitted,

  
Paul W. Burleson, M.D., Chairman

  
Orizaba Emfinger, M.D.

  
William E. White, M.D.





## AMA Reorganization

It took 18 months and four sessions of the House of Delegates, but the restructuring of the AMA council system was finally completed by delegates to the 1976 Annual Convention in Dallas.

The house approved bylaw changes establishing size, composition, and tenure for eight standing councils of the American Medical Association. All other AMA councils will be appointed on an ad hoc basis and carry a specific phase-out date.

The streamlining of the Association's sprawling council-committee structure is an outgrowth of the fiscal crisis from which the AMA has extricated itself, and apparently ends the tug of war between delegates and the Board of Trustees over which will control the councils. Both house and board are granted ample supervisory authority under the new setup.

The eight councils range in size from 5 to 11 voting members, with tenures of 9 or 10 years based on terms ranging from 1 to 5 years. Voting representation is provided for residents on all but the Judicial Council and Council on Constitution and Bylaws. There is a non-voting resident on the bylaws council.

Non-voting representation is provided on two councils each for the AMA Auxiliary and three councils for the medical student section, with the students also having a voting member on the Council on Long-Range Planning and Development.

Five of the councils—Constitution and Bylaws, Judicial, Medical Education, Medical Service, and the newly created Council on Scientific Affairs—will be elected by the house upon nomination by the board of two or more eligible members for each vacancy on the council, with further nominations allowed from the floor of the house.

Two councils, Legislation and Continuing Physician Education (renamed from the Council on Continuing Medical Studies, which, in turn, had been renamed from the former Council on Scientific Assembly), will be appointed by the board.

The eighth council, on long-range planning and development, will be appointed jointly by the board and the speaker of the house.

On Wednesday evening, prior to the inauguration of Dr. Richard Palmer as the new AMA president, presidents from all state medical associations were recognized by outgoing president, Dr. Max Parrott. Dr. Wright is seated on the top row to the left-hand side of the podium.

In creating the eight standing councils, delegates formally phased out the five councils and 29 committees that had been inactivated back in 1974.

## Budget

Sweetness and light between the AMA House of Delegates and its Board of Trustees prevailed as delegates commended the trustees for their outstanding service in elevating the Association from the financial morass into which it had plunged in late 1974.

The AMA has a current full dues-paying membership of 137,023, within close range of the 144,500 figure upon which the 1976 AMA budget is based. This would allow the AMA to apply about \$10 million to its liquid reserves, bring the total by November 30, 1976, to \$18.2 million.

This is in keeping with the Association's determination to replenish its reserves, as directed by delegates to the 1975 Annual Convention when dues were raised from \$110 to \$250 annually.

The goal of 144,500 full dues-paying members, which would represent a loss of about 15%, or 20,000, from the 164,000 1975 members, is considered essential if the Association is to continue existing programs and start carefully chosen new ones. A factor in accumulating the reserves is the AMA's potential tax liability under the Internal Revenue Service's unrelated business income levy for the years 1968-75.

Delegates retained the \$250 annual dues, rejected a resolution that dues be paid in installments, and approved the 1976 AMA plan, as developed by the board and the Council on Long-Range Planning and Development.

On other housekeeping issues, delegates:

- Rejected a resolution that the AMA limit its education programs in order to support the Association's role as the

advocate of members against government and other third parties.

- Rejected a resolution calling for the board to consult the house on all business ventures exceeding \$1 million.

- Rejected a resolution that the AMA refuse to accept federal funds and that it discourage the Joint Commission on Accreditation of Hospitals from accepting government contracts.

- Rejected a resolution calling for the reinstatement of the AMA Field Service Department. Delegates were told that the board is planning a modified version of the department that will be even more useful and less expensive.

## National Health Insurance

Delegates renewed their support for the Association's Mediredit proposal for national health insurance, but decided against seeking legislation to guard against the costs of catastrophic illness.

Debate on NHI highlighted various legislative proposals that came before the house in its closing hours. Discussions thus were on familiar terrain as delegates reiterated their opposition to the encroachment of government upon medical practice.

The support for Mediredit marked the eighth straight year delegates have endorsed the Association's proposal of tax credit to offset the purchase of comprehensive health insurance.

Mediredit would build on the existing system of private health insurance and is in stark contrast to proposals such as Kennedy-Corman that would federalize the medical care system into a monolith administered by the Social Security Administration, supported by compulsory payroll taxes, and estimated to cost as much as \$90 billion annually. Mediredit, the least costly NHI proposal, is estimated to cost \$2.5 billion annually.

## Utilization Review

Delegates reaffirmed—in strong terms—their opposition to utilization review of hospital admissions within 24 hours, whether by federal PSRO regulation or rules of the Joint Commission on Accreditation of Hospitals (JCAH).

Frank Coleman, M.D., a Florida delegate, pointed out that the federal PSRO program manual, published in 1974, recommended “following day” review of admissions—though the program manual does not have the force of either law or federal regulation.

Though PSROs are not bound to follow the next day review guideline, the growth of PSROs made it important for the AMA to express its continued opposition to 24-hour review, Dr. Coleman said.

He also said that although JCAH had no written policy requiring or favoring 24-hour review of admissions, there were indications that JCAH unofficially favors such “concurrent” review.

However, JCAH Executive Director John D. Porterfield, M.D., said the commission's policy is only that hospital medical staffs should conduct some form of utilization review.

Retrospective review is considered sufficient, Dr. Porterfield said, unless there is substantial evidence of overutilization at a specific hospital.

He added that he understood the federal Bureau of Quality Assurance likewise favored a policy of retrospective review as long as there is no sign of overutilization.

The important point is that the review method be flexible, said Utah delegate Alan R. Nelson, M.D., a member of the National PSRO Advisory Council.

Dr. Coleman, one of the authors of a resolution which led to the house action, agreed that a three-working-day review period was acceptable.

## Liability Insurance

Expressing concern about the Medical Liability Commission's plans to engage in lobbying and political activity, the house directed AMA representatives to seek immediate changes in commission bylaws.

The house also authorized withdrawal of AMA membership, but struck out language that would have withdrawn the Association immediately if the bylaw changes are not made at the commission's next meeting.

The house also encouraged state medical associations to give appropriate assistance to physicians involved in countersuits to non-meritorious medical liability suits.

The house also adopted a board report on the American Medical Protective Association, and asked that a progress report on AMA efforts to resolve the professional liability problems be presented at this year's Clinical Convention in Philadelphia.

In other action, the house:

- Accepted a board report on progress of the American Medical Assurance Company (AMACO).

- Requested the board to do additional study on a patient-compensation program, and to report at the 1976 Clinical Convention.

## PSRO

Delegates turned down a resolution calling for the AMA to assist 13 state medical societies in breaking contracts as statewide Professional Standards Review Organization (PSRO) support centers.

The Board of Trustees had expressed support for continuing funding of the statewide support centers, at the request of the state societies. That request was made so the societies could continue assistance in the implementing of appropriate PSRO programs.

In related action, the house:

- Filed reports from the Council on Medical Service pertaining to the status of PSROs and asked that the council and its ad hoc committee continue to “monitor closely the development and implementation of this program.”

- Called for the AMA to negotiate with the Department of Defense a “no-rollback” of CHAMPUS fees below current levels and maintain usual and customary fees in the future.






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Chairman of the AMA Board of Trustees Raymond Holden, M.D. (l), presents Goldberger Award in Clinical Nutrition to Charles E. Butterworth, Jr., M.D., professor of pediatrics and director of the nutrition program of the UAB School of Medicine.

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- Adopted a resolution establishing a definition of medical rehabilitation services, to be distributed to appropriate federal and state agencies, state boards of medical examiners, and fiscal intermediaries.
- Adopted a resolution which requests the board to update its policy on physicians' offices owned or controlled by hospitals and in "close proximity to such hospitals."

## Hospital Staff Policies

The house clarified several policy positions on the rights of physicians in hospital medical staffs, to be sent to the Joint Commission on Accreditation of Hospitals (JCAH).

One Board of Trustees report on the procedures and rules for medical audit by JCAH surveyors drew questions from delegates who said the audit reports were often being given to hospital trustees.

The house added a paragraph to the board's report, saying the AMA opposed release of individual audit reports outside the medical staff.

## AMA-ERF and AMPAC

Two special activities of America's physicians—raising funds for medical education and promoting political action—are having banner years.

The Association's Education and Research Foundation is stronger than ever, reported Kenneth Sawyer, M.D., foundation president.

During 1975, Dr. Sawyer noted, AMA-ERF raised \$2.8 million for student loans and unrestricted gifts to medical schools. Since the program started in 1962, 58,936 students have been granted loans totaling \$69,368,098. The 1975 performance—with 3,737 new loans guaranteed for \$5,259,800—was a new record.

In predicting an even better performance in 1976, Dr. Sawyer accepted a record \$1.4-million check from AMA-ERF's prime benefactor, the AMA Auxiliary. Donations also were made by the Audio New Digest, which contributed \$50,000, and the 50 Year Club of American Medicine, which gave \$5,000.

James S. MacLaggan, M.D., chairman of the American Medical Political Action Committee, said 1976 AMPAC membership has already reached a new high, both in regular and sustaining members, and cited increased physician political activity this election year.

## Anti-Smoking Campaign

The depiction of cigarette smoking as "normal behavior" in magazines, newspapers, and television programs will be the target of a new anti-smoking effort by the AMA.

The house passed two anti-smoking resolutions, including a provision to discourage advertising and other materials in mass media portraying smoking.

But the delegates blunted a housestaff-sponsored resolution that would have urged an end to U. S. Department of Agriculture price supports for tobacco growing after delegates testified that there are no subsidies for tobacco.

## Primary Care Report

A Council on Medical Service report on primary care designations was rejected by the house after opponents testified that many specialists, such as ophthalmologists, have patients who are self-referred without first going to another physician.

The Council report does define the three "essential elements" of primary care as initial access to health services, continuing patient-centered responsibility for comprehensive care, and prevention and coordination of other care resources needed by patient.

## Fee Discrimination

A report from the Council on Medical Service on fee discrimination was approved by delegates. The report expresses concern about fee inequities for rural physicians and their possible effects on placement of physicians in rural areas.



**Dallas Cowboys quarterback Roger Staubach spoke at the National Conference on the Medical Aspects of Sports.**

Recommendations in the report call for the AMA to "...continue to emphasize usual and customary or reasonable charges as the basis for physician payment..." and urge those physicians who are "underpaid" to bill their appropriate fees for services "even if payors reduce the amount of payment."

The AMA also was called on to continue its efforts to seek an amendment of the Medicare law "as it pertains to reimbursement for physician services and rescission of the 'economic index' regulations, using all available means."

The house also adopted a resolution which calls on the AMA to urge peer review committees to "correct or refer to the appropriate disciplinary bodies" those physicians who have not met professional standards.

## **Serologic Testing**

A five-year joint project with the American Bar Association (ABA) to develop standard guidelines for serologic testing in cases of disputed parentage ended in Dallas with approval of a 37-page report by the Board of Trustees.

The complex and exhaustive report summarizes current medical knowledge on the reliability of serologic testing methods in legal cases where paternity is questioned.

The report also makes recommendations for standard legislation to set uniform guidelines for judges in ordering serologic testing.



The issue of whether such tests should be ordered—and the degree of their reliability—has been a long-debated question among lawyers, and the report stems from a 1971 request by the ABA for definitive AMA recommendations on the subject.

It is the first "official" statement of the reliability of blood testing evidence, and includes a lengthy summary of the status of new research in the field, especially in the controversy over the reliability of recent histocompatibility (HLA) techniques.

## **TV Violence Report**

The effect of television violence on children will be the target of a broad-based public service program approved by the house.

The delegates approved a report from the Board of Trustees urging, among other things, publishing of a booklet for distribution to patients, outlining what parents should look for in television programming for children.

A committee will also be appointed to evaluate recent research on the effect of TV violence, and to make recommendations on what physicians should know about its effect on children.

The AMA also will meet with officials of the National Association of Broadcasters (NAB), to suggest periodic joint AMA-NAB conferences on the impact of TV on children.

## **Osteopaths**

Osteopaths are still being blocked from entering surgery training and certification programs, AMA delegates learned—but the Association will continue to urge surgery specialty boards to accept osteopaths.

The house approved a Board of Trustees report reaffirming the AMA's policy that osteopaths should be permitted to enter specialty training, if they meet entry standards.

But five specialty boards—colon and rectal surgery, neurological surgery, plastic surgery, urology, and surgery—still do not consider osteopaths eligible for certification.

The 17 other specialty boards do accept osteopaths, the report said. But the AMA has no control over specialty boards and has not been able to convince the surgery boards to change their position.



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Marjorie Lynch, Undersecretary of Health, Education, and Welfare Department, addressed the AMA House of Delegates.

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## Podiatrists

The AMA will study efforts by podiatrists to win full staff privileges in hospitals, equal to that of the medical staff, the house decided.

A resolution was referred for investigation urging the Joint Commission on Accreditation of Hospitals (JCAH) not to change its current policies restricting hospital privileges for allied health professionals to the supervision of physicians.

## Awards

A series of awards was presented by the AMA during the convention. Among them:

- To Alton I. Sutnick, M.D., the Arnold and Marie Schwartz Award.
- To Charles E. Butterworth, M.D., the Joseph Goldberger Award in Clinical Nutrition.
- To Harry Goldblatt, M.D., the Scientific Achievement Award.
- Rep. Paul Rogers (D-Fla.), the AMA Citation of a Layman for Distinguished Service.



## Other Actions

- Requested the Joint Commission on Accreditation of Hospitals to ensure that mandatory review and audit programs do not overemphasize cost savings at the expense of quality medical care.
- Referred to the Council on Medical Service a resolution opposing a federal requirement that nursing home patients must be examined by a physician every 60 days.
- Voted to urge the Drug Enforcement Agency (DEA) and the Food and Drug Administration to ensure that an adequate supply of controlled substances narcotics is available for legitimate medical use.
- Asked constituent medical societies to investigate the accuracy of quotations attributed to physicians in lay press stories on cancer treatment. The resolution included a proposal to investigate a Parade magazine article that stated that cancer is "likely to be misdiagnosed" by most physicians.
- Encouraged implementation of building code changes that would provide access to all public facilities for the handicapped and wheelchair-bound individuals.
- Rejected a resolution against discrimination in AMA publication advertising. The house agreed that the present policy already includes an anti-discrimination statement.
- Encouraged the expansion of clinical training in diploma nursing education programs.
- Referred back to the board a Council on Medical Education report that would have revised urology residency training program requirements.
- Referred to the board for further study a resolution urging medical specialty boards not to independently change residency requirements without consultation with the proper residency review committee of the AMA.
- Referred for board study a proposed re-evaluation of general clinical training in medical schools and residency programs.
- Adopted a resolution that directs the AMA's Council on Medical Education and the Liaison Committee on Continuing Medical Education to avoid accrediting procedures for continuing education programs that would have adverse effects on state medical society programs. ■

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AMA president-elect Richard E. Palmer, M.D., (r) presents Citation of a Layman for Distinguished Service to Rep. Paul Rogers (D-Fla.), chairman of the House Public Health and Environment Subcommittee.

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# AMA

## representing the profession:

The AMA is primarily a scientific organization. More than 54 per cent of the AMA's budget is spent to improve the delivery of medical and health care; 12 per cent to improve the quality of American medicine; and 11 per cent to improve the public's health knowledge and practices. But these are mere percentages. In fact, every dollar the AMA spends is aimed at helping the physician practice first-rate medicine. During the past year some 2600 bills relating to medical and health care were introduced in Congress. It is the objective of the AMA to see that this legislative action furthers, rather than restricts, the quality of medical care and the ability of physicians to do their best work.



## Check the record:

# What has

### 1. AMA To Fight FTC Complaint On Physician Advertising

In a surprise move, the Federal Trade Commission announced a complaint against the AMA's ban on patient solicitation by member physicians. Believing that solicitation by a professional is the very antithesis of professionalism, the AMA has joined in the complaint with the New Haven County Medical Association and the Connecticut State Medical Society, and is fighting to protect the interests and integrity of the profession.

The AMA Judicial Council, reaffirming longstanding policy, stated that the AMA's Principles of Medical Ethics are intended to discourage abusive practices which exploit patients and the public and interfere with freedom in making an informed choice of physicians and free competition among physicians.

The Judicial Council points out that the Principles of Medical Ethics do not proscribe advertising; they proscribe the solicitation of patients. Physicians may furnish information to the public through the accepted local media of advertising or communication which are open to all physicians on like conditions.

In this administrative action the AMA has hired the same law firm which successfully represented the Association in the suit which forced HEW to withdraw its Utilization Review Regulations.

### 2. AMA To Counter New FTC Probe On Alleged AMA Restraint Of Physician Supply With Facts

The Federal Trade Commission has commenced an investigation to determine whether the AMA may have illegally restrained the supply of physicians and health care services through activities relating to: accreditation of medical schools and graduate programs; definitions of fields of practice for physicians and allied health personnel; and limitations on forms of health care delivery inconsistent with a traditional fee-for-service approach.

Since its inception 27 years ago, the AMA's Educational and Research Foundation (AMA-ERF) has guaranteed over \$70,000,000 in loans to medical students...over \$5.2 million in 1975 alone...and has averaged over one million dollars per year in unrestricted grants to U.S. and Canadian medical schools.

AMA, in testimony before Congressional Committees has been consistently in favor of increasing federal loans to medical students, increasing medical fellowships, and increasing the number and size of medical schools.

Very strange behavior indeed for an association which allegedly attempts to practice professional birth control!



# your AMA done for you lately?

## 3. AMA Draws Line On Health Planning Law

AMA is planning legal action to overturn the recently passed National Health Planning and Resources Development Act. Calling the act, "the single, most potentially destructive piece of medical legislation ever enacted by Congress," Dr. James Sammons, the Association's Executive Vice President, said, "We intend to communicate and cooperate with government. If that communication must take place in a courtroom, rather than a conference room, so be it!"

The law has the potential for creating a health planning empire for HEW in the interests of cost containment and efficiency. The federal bureaucracy can tell the profession and its patients what type of health facilities they will have, what services will be provided, how these services will be organized, and when and where these services will be rendered. Many basic decisions about quality of care may no longer be made by those closest to the patient and whose emphasis is on the quality of care; instead, the decisions can be circumscribed by governmental rules and regulations, and made by those whose emphasis will be on cost.

## 4. AMA Fights 4% CAP On Medicare Fee Increases

The Chairman of the AMA Board of Trustees testified in strong opposition to a federal proposal to restrict fee increases during the next fiscal year to 4% under the Medicare program. The AMA was asked to testify before the House Ways and Means Subcommittee on the proposal.

An AMA delegation of Officers met with President Ford to protest the 4% cap on Medicare increases. There is apparently little chance that Congress will approve the 4% proposal. To many physicians, this one action is worth many times the \$250 annual AMA dues.

AMA continues to champion the preservation of a pluralistic system of health care delivery, encompassing private practice and fee-for-service.

## 5. AMA And Continuing Medical Education

Today, state medical associations, medical specialty societies, and medical groups in increasing numbers are making Continuing Medical Education a requirement of membership. And more and more physicians, through their own initiative, are updating their medical knowledge and skills through C.M.E. The AMA's Physicians Recognition Award

fulfills the C.M.E. requirements of many of these organizations and individual physicians.

To meet the challenges of continuing professional competence, AMA has greatly expanded its C.M.E. programs this year, offering nine regional C.M.E. meetings around the country in addition to its scientific programs at both the Annual and Clinical Conventions.

The purpose of the regional programs is to make it easier and more convenient for physicians to continue their medical education by bringing the meetings closer to their hometown and by scheduling them on weekends to avoid interference with their practice.

## 6. How AMA Represents The Profession In Washington

There is only one organization that can, and does effectively speak for the profession as a whole...your AMA.

AMA scrutinized over 2,600 Congressional bills affecting medicine and the nation's health last year; and AMA spokesmen represented the profession a record 82 times. This included appearances before Committees of Congress considering pending legislation and before Administrative Agencies on proposed rules and regulations.

Subjects included: National Health Insurance, Health Manpower, Professional Liability, FDA Rules and Regulations, Confidentiality, Health Appropriations, Medicaid and Medicare, Drugs, Health Education, Medical Devices and Pollution.

If the views of the American doctors are to be heard, their rights protected, their interests fostered, they must have a single, strong national voice speaking for them. The AMA has been charged with that responsibility, serving the vital functions of intermediary between government and the profession. ■

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## DIGEST OF ACTIONS OF THE STATE COMMITTEE OF PUBLIC HEALTH

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CONTINUED FROM PAGE 58

program in early September. The subject of liability of the drug companies and of administrative agencies continues to be of concern.

- Received an offer from the Alabama Pharmaceutical Association offering the services of pharmacists in the Swine Influenza Immunization effort which was gratefully acknowledged. ■

# JUST ONE CHEWABLE TABLET

usually eradicates pinworms in both  
children and adults<sup>†</sup>





## No dosage calculations

Vermox (mebendazole) offers a greatly simplified method of treating pinworm. Just one tablet, for every member of the family, regardless of weight or age.<sup>†</sup>

## Simplicity of administration

Patients can take the tablet at any time. It can be chewed, swallowed, or crushed and mixed with food. No messy liquids to pour.

## Not a dye

Vermox will not stain clothes, teeth, feces, toilet bowls, etc.

## Highly effective

In clinical studies, the pinworm mean cure rate with Vermox was 95% (range 90-100%). In cases where reinfection occurs, a repeat tablet is advised.

## Well tolerated

Transient symptoms of abdominal pain and diarrhea have occurred in cases of massive infection and expulsion of worms.

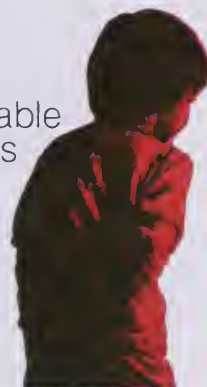
## Also effective against whipworm...as well as roundworm and hookworm

Just one simple dosage, regardless of weight or age,<sup>†</sup> for single or mixed infections: 1 chewable tablet b.i.d. for 3 consecutive days. If the patient is not cured 3 weeks after treatment, a second course of treatment is advised.

<sup>†</sup> Because Vermox has not been extensively studied in children under 2 years of age, the relative benefit/risk should be considered before treating these children. Vermox is contraindicated in pregnant women (see: Pregnancy Precautions) and in persons who have shown hypersensitivity to the drug.

# Vermox<sup>®</sup> chewable tablets

(mebendazole)



**DESCRIPTION** VERMOX (mebendazole) is methyl 5-benzoylbenzimidazole-2-carbamate

**ACTIONS** VERMOX exerts its anthelmintic effect by blocking glucose uptake by the susceptible helminths, thereby depleting the energy level until it becomes inadequate for survival. An insignificant amount of mebendazole is absorbed from the gastrointestinal tract. Most of this is excreted in the urine within three days either as metabolites or unchanged drug.

**INDICATIONS** VERMOX is indicated for the treatment of *Trichuris trichiura* (whipworm), *Enterobius vermicularis* (pinworm), *Ascaris lumbricoides* (roundworm), *Ancylostoma duodenale* (common hookworm), *Necator americanus* (American hookworm) in single or mixed infections.

Efficacy varies in function of such factors as pre-existing diarrhea and gastrointestinal transit time, degree of infection and helminth strains. Efficacy rates derived from various studies are shown in the table below.

	Trichuris	Ascaris	Hookworm	Pinworm
<b>cure rates</b> mean (range)	68% (61-75%)	98% (91-100%)	96% —	95% (90-100%)
<b>egg reduction</b> mean (range)	93% (70-99%)	99.7% (99.5-100%)	99.9% —	— —

**CONTRAINDICATIONS** VERMOX is contraindicated in pregnant women (see Pregnancy Precautions) and in persons who have shown hypersensitivity to the drug.

**PRECAUTIONS PREGNANCY:** VERMOX has shown embryotoxic and teratogenic activity in pregnant rats at single oral doses as low as 10 mg/kg. Since VERMOX may have a risk of producing fetal damage if administered during pregnancy, it is contraindicated in pregnant women.

**PEDIATRIC USE** The drug has not been extensively studied in children under two years, therefore, in the treatment of children under two years the relative benefit/risk should be considered.

**ADVERSE REACTIONS** Transient symptoms of abdominal pain and diarrhea have occurred in cases of massive infection and expulsion of worms.

**DOSAGE AND ADMINISTRATION** The same dosage schedule applies to children and adults. For the control of pinworm (enterobiasis), a single tablet is administered orally, one time.

For the control of roundworm (ascariasis), whipworm (trichuriasis), and hookworm infection, one tablet of VERMOX is administered, orally, morning and evening, on three consecutive days. If the patient is not cured three weeks after treatment, a second course of treatment is advised. No special procedures, such as fasting or purging, are required.

**HOW SUPPLIED** VERMOX is available as tablets, each containing 100 mg of mebendazole, and is supplied in boxes of twelve tablets. VERMOX (mebendazole) is an original product of Janssen Pharmaceutica, Belgium, and co-developed by Ortho Pharmaceutical Corporation.



Ortho Pharmaceutical Corporation  
Raritan, New Jersey 08869

OJ 175-6

## "DEFINITION OF DEATH" BILL BEFORE ALABAMA LEGISLATURE

A bill to define death is now before the Alabama Legislature, following its preparation by MASA's Council on Legislation in cooperation with the UAB Medical Center. It is tailored somewhat after successful bills in other states.

Under the bill's definition, a personal will be considered medically and legally dead if, in the opinion of the physician, "based on the usual and customary standards of medical practice in his general neighborhood, there is no spontaneous respiratory or cardiac function and there is no expectation of recovery of those functions."

However, when respiratory and cardiac functions are maintained by artificial means, the physician may pronounce death before termination of the artificial means if there is "total cessation of brain function," which must be confirmed by another physician. ■

## DEAN'S REPORT CONTINUED FROM PAGE 44

7. Pittman, J.A.: Who Does the Doctor Work For? Address to University of Alabama Graduating Class of January, 1974 (to be published).
8. Pittman, J.A.: Dean's Report, University of Alabama School of Medicine, 1975: Expansion of the System. Ala. J. Med. Sci. 12:119 (Spring) 1975.
9. Pittman, J.A.: Quality of Medical Education and Quality Health Care. Journal of the Med. Assn. of the State of Ala. 45:65 (November) 1975.
10. Pittman, J.A.: Pathology Central (erratum). J. Med. Assn. State of Ala. 45:49 (May) 1976. ■

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an expectorant and only  
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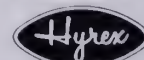
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An identifiable white, scored tablet which significantly stimulates the secretion of respiratory tract fluid.

# HYTUSS TABS

(GLYCERYL GUAIACOLATE 100mg.)

**Composition:** Each sugar-free compressed tablet contains glyceryl guaiacolate 100mg. **Action and Use:** This preparation utilizes the effective expectorant action of glyceryl guaiacolate which significantly stimulates the secretion of respiratory tract fluid. The increased flow of less viscid fluid favors expectoration and has a damocant affect on the tracheobronchial mucosa. The primary usefulness of Hytuss Tabs is to promote the change from a dry, unproductive cough to a productive cough. Hytuss is therefore useful in treating coughs due to the common cold, bronchitis, laryngitis, trachaitis, pharyngitis, influenza and the measles. The expectorant action of Hytuss may also provide symptomatic relief in some chronic respiratory disorders when the patient experiences spasms of dry nonproductive coughing. **Precautions:** Extremely large amounts may cause nausea and vomiting. **Administration and Dosage:** Adults—1 tablet four times daily. Children—6 to 12 years of age; ½ tablet 3 or 4 times daily. **HOW SUPPLIED:** White, scored, sugar-free, tablet in bottles of 100 - 1,000 - 5,000. **Product Identification Mark:** Hy. Literature Available: On request. Available through all drug wholesalers.

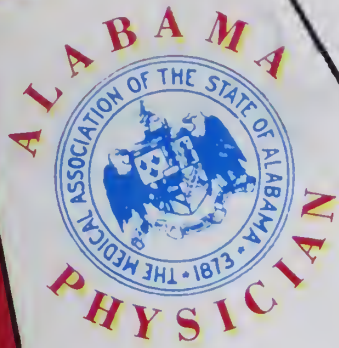


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# JOURNAL

of the  
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SEPTEMBER 1976

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# Both often



Predominant  
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Associated  
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symptoms

**Before prescribing, please consult complete product information, a summary of which follows:**

**Indications:** Tension and anxiety states; somatic complaints which are concomitants of emotional factors; psychoneurotic states manifested by tension, anxiety, apprehension, fatigue, depressive symptoms or agitation; symptomatic relief of acute agitation, tremor, delirium tremens and hallucinosis due to acute alcohol withdrawal; adjunctively in skeletal muscle spasm due to reflex spasm to local pathology, spasticity caused by upper motor

neuron disorders, athetosis, stiff-man syndrome, convulsive disorders (not for sole therapy).

**Contraindicated:** Known hypersensitivity to the drug. Children under 6 months of age. Acute narrow angle glaucoma; may be used in patients with open angle glaucoma who are receiving appropriate therapy.

**Warnings:** Not of value in psychotic patients. Caution against hazardous occupations requiring complete mental alertness. When used adjunctively in convulsive dis-

orders, possibility of increase in frequency and/or severity of grand mal seizures may require increased dosage of standard anti-convulsant medication; abrupt withdrawal may be associated with temporary increase in frequency and/or severity of seizures. Advise against simultaneous ingestion of alcohol and other CNS depressants. Withdrawal symptoms (similar to those with barbiturates and alcohol) have occurred following abrupt discontinuance (convulsions, tremor, abdominal and muscle cramps, vomiting and sweating). Keep addiction-prone individuals under careful



# respond to one

According to her major symptoms, she is a psychoneurotic patient with severe anxiety. But according to the description she gives of her feelings, part of the problem may sound like depression. This is because her problem, although primarily one of excessive anxiety, is often accompanied by depressive symptomatology. Valium (diazepam) can provide relief for both—as the excessive anxiety is relieved, the depressive symptoms associated with it are also often relieved.

There are other advantages in using Valium for the management of psychoneurotic anxiety with secondary depressive symptoms: the psychotherapeutic effect of Valium is pronounced and rapid. This means that improvement is usually apparent

in the patient within a few days rather than in a week or two, although it may take longer in some patients. In addition, Valium (diazepam) is generally well tolerated; as with most CNS-acting agents, caution patients against hazardous occupations requiring complete mental alertness.

Also, because the psychoneurotic patient's symptoms are often intensified at bedtime, Valium can offer an additional benefit. An *h.s.* dose added to the *b.i.d.* or *t.i.d.* treatment regimen can relieve the excessive anxiety and associated depressive symptoms and thus encourage a more restful night's sleep.



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**(diazepam)** 

2-mg, 5-mg, 10-mg scored tablets

in psychoneurotic  
anxiety states  
with associated  
depressive symptoms

surveillance because of their predisposition to habituation and dependence. In pregnancy, lactation or women of child-bearing age, weigh potential benefit against possible hazard.

**Precautions:** If combined with other psychotropics or anticonvulsants, consider carefully pharmacology of agents employed; drugs such as phenothiazines, narcotics, barbiturates, MAO inhibitors and other antidepressants may potentiate its action. Usual precautions indicated in patients severely depressed, or with latent depression, or with suicidal tendencies.

Observe usual precautions in impaired renal or hepatic function. Limit dosage to smallest effective amount in elderly and debilitated to preclude ataxia or oversedation.

**Side Effects:** Drowsiness, confusion, diplopia, hypotension, changes in libido, nausea, fatigue, depression, dysarthria, jaundice, skin rash, ataxia, constipation, headache, incontinence, changes in salivation, slurred speech, tremor, vertigo, urinary retention, blurred vision. Paradoxical reactions such as acute hyperexcited states, anxiety, hallucinations, increased muscle

spasticity, insomnia, rage, sleep disturbances, stimulation have been reported; should these occur, discontinue drug. Isolated reports of neutropenia, jaundice; periodic blood counts and liver function tests advisable during long-term therapy.



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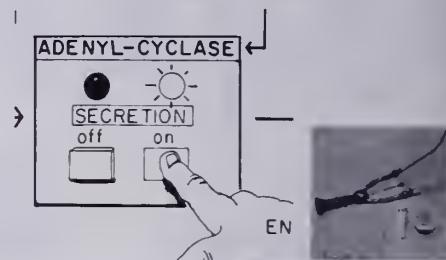
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Each month, just like clockwork, a postcard arrives at MASA headquarters from the Clarke County Medical Society. It is addressed to the *Alabama M.D. Calendar*.

On the reverse side, the next monthly meeting of the Clarke County Medical Society is listed by date, time and location. No other copy is included.

Simple, straightforward and to-the-point, the postcard never contains more than seven words. The information is immediately transferred to the *Alabama M.D. Calendar* and readied for composition. The card always arrives two to three weeks prior to the scheduled meeting.

Secretary-treasurers of other county medical societies might keep Clarke County's idea in mind when trying to make sure that all of their members are aware of important meeting dates. The calendar of the *Alabama M.D.* is printed with one goal in mind: to present a current listing of continuing medical education programs and society meetings for Alabama physicians. The Calendar is an excellent means of communicating to your members the exact date, time and location of your monthly meetings. This can be done at a cost of only 9 cents per month!

\*\*\*

Nearly seven thousand posters have been distributed across the state which illustrate the Heimlich Maneuver to be employed in saving the life of someone choking on food. The MASA project has only been full-fledged for two months, but the response has exceeded previous estimates. These responses are indicative of the general public's thirst to partake in public service programs of this nature.

Plans are now underway to produce a public service spot for use by all Alabama commercial television stations in which the food-choking emergency is presented with the victim being rescued by an alert layman who applies the Heimlich Maneuver.

\*\*\*

Over a year ago when the *Journal* was brought in-house for publication and printing, a new section was created entitled "Letters to the Editor." It was thought that this

feature would encourage reader response that the *Journal* heretofore had not witnessed.

In a survey contained within a recent issue of the *Journal*, the "Letters to the Editor" feature was rated near the top in attention received and readability by those who responded to the survey. It has become a very popular *Journal* attraction.

The *Journal* wishes to encourage more physician input by writing to the editor, regardless of its tone: informative, critical, praiseworthy or taking a position on a certain issue. So please, keep those cards and letters coming!

\*\*\*

"Sam Somebody, Ernest Everybody, Art Anybody and Nathan Nobody were physicians in the same region, but they were not like you and me. They were odd people and most difficult to understand.

All four belonged to the same association, but you couldn't have enjoyed working with them. EVERYBODY stayed home on the day of the Annual Business Meeting and thought about possibly going to the next meeting. ANYBODY wanted to go to the meeting but was afraid SOMEBODY wouldn't speak to him. NOBODY went to the meeting.

Really, NOBODY was the only decent one of the four. NOBODY worked on projects. One time the state association needed a committee chairman. EVERYBODY thought ANYBODY would do it, and SOMEBODY thought EVERYBODY should. Guess who finally did? That's right.... NOBODY.

It happened that a fifth physician moved into their region. EVERYBODY thought SOMEBODY should ask him to join the association. ANYBODY could have at least made an effort. But guess who finally did? That's right... NOBODY.

This is just a short story that makes one sit down and think...and then get up and do something.

Have you taken the time to join our cause? Take a few moments and talk to someone who does not belong to our association; serve on that committee when you are asked and get involved in all the activities of this association."

- Copied -

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**consult local listing for time/channel**





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Hill Crest is a member of: American Hospital Association, National Association of Private Psychiatric Hospitals, Alabama Hospital Association, Birmingham Regional Hospital Council.

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## Impact Of Commitment



WILLIAM T. WRIGHT, M.D.

**NOW IS THE TIME** for Doctors to be politically active and forceful. We should examine the platform of each candidate for the Presidential, Congressional and local races.

We should first decide which candidate will do the best job for all the citizens in every way; then, let us examine their stands on Medical affairs because health care affects all people especially physicians who have a major role in the delivery of medical services. If we do not protect ourselves, no one will do it for us!

Many doctors do not contribute to campaigns either in active interest or money. We who have such a strong potential force by talking with patients and political leaders when they are at home, yet remain silent because we are too busy or too shy to try and use our potential force!

If you believe that Mr. Carter's statement on his intentions of introducing compulsory National Health Insurance for all in 1977 is the best system, then support him publicly. If you believe this is not the route we should travel, then publicly support President Ford.

Other groups, whether it be chiropractors, bankers, labor unions, etc., backup their thoughts with money and action. If we do not voice our opinions, how will the public know how their doctor feels about health care? I do not believe that hiring more bureaucrats to federally administer medical care will do anything but increase cost and generally louse up the best medical system in the world.

I believe most of us realize there should be some type of catastrophe coverage. We do not wish to deprive medical care to the indigent, but not by the wildest stretch of the imagination can we believe federally controlled medical systems will be in the best interest of the patient, which is always our foremost concern. So don't except the thought that the outcome of any of the elections is at this point a foregone conclusion!

If each of you will become active now, maybe it's not too late to have some impact on helping to preserve our American Medical System.

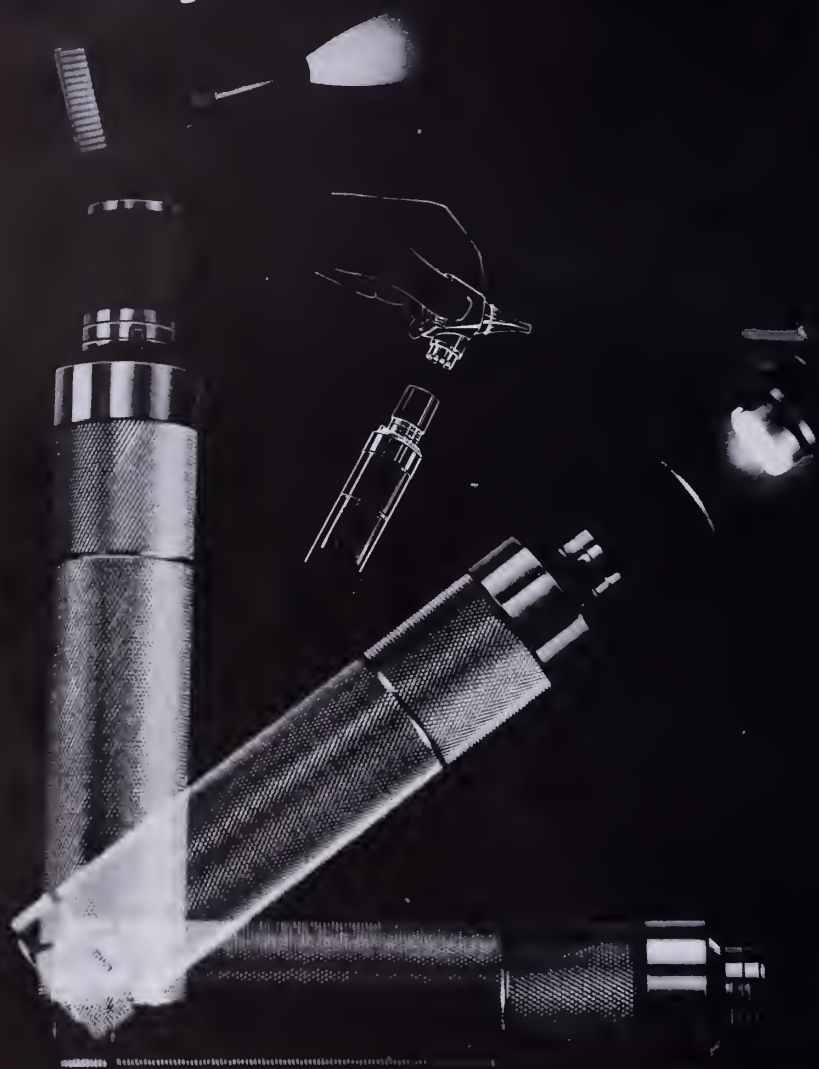
ALAPAC and AMPAC are important organizations and we should support them, but this does not replace the need for "grass roots" action and support by all of us. Without local action, these organizations are purely ineffective tools.

Start today, become more active, don't rely on the system to protect you but protect the system by action. Look at the voting records of the candidates, write your congressman about key issues.

Many doctors are hesitant to let their patients know who they are supporting and why for fear they will offend patients. Don't be shy. You will probably find a lot of patients who will be influenced by their doctor's feelings. Others will admire your courage for taking a stand.

*Bill*

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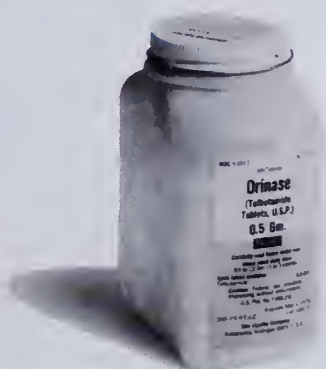
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for

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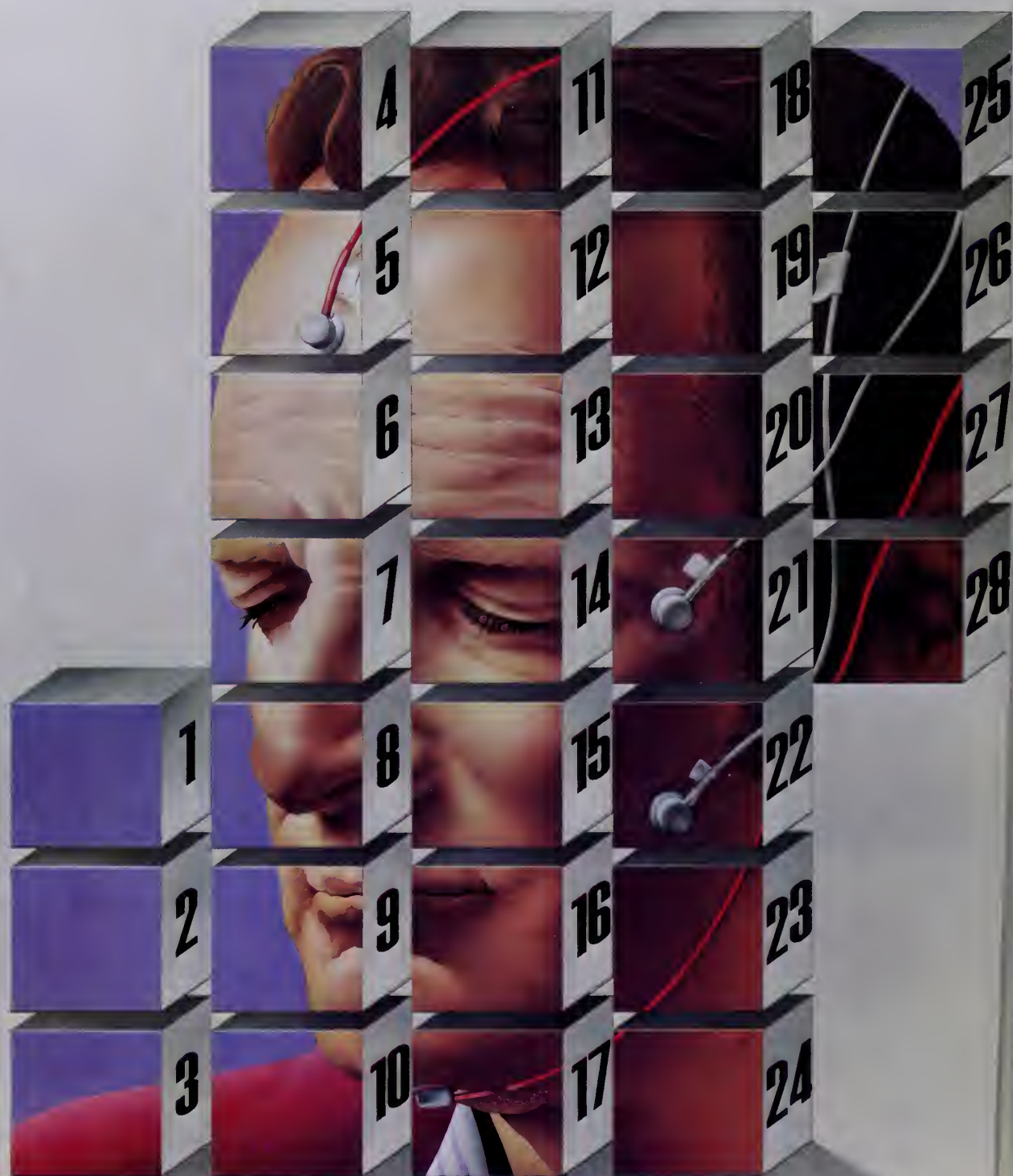
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For insomnia that is a chronic problem...

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## Continued relief of insomnia in patients with chronic insomnia

Since insomnia is often transient and intermittent, the prolonged administration of a hypnotic is generally not necessary or recommended. But when insomnia is a chronic or recurring problem, continued effectiveness is as important as initial effectiveness. Results of a recently published sleep research laboratory study<sup>1</sup> demonstrated that, while pentobarbital lost effectiveness within two weeks, Dalmane maintained effectiveness for 28 consecutive nights. Similar 28-night results with Dalmane, displayed below, were obtained by a second sleep research group.<sup>2</sup> In previous studies,<sup>3</sup> both chloral hydrate and glutethimide began to lose effectiveness after several nights, while Dalmane maintained effectiveness throughout the 14 medication nights. Whether the problem is difficulty falling asleep, staying asleep or sleeping long enough, consider these results when selecting a sleep medication.

## Patient benefits include relative safety, infrequent morning "hang-over"

Dalmane is well tolerated, seldom causing morning drowsiness or grogginess.<sup>4</sup> No increase in dosage is required for continued effectiveness from night to night.<sup>1-3</sup> Should Dalmane be used repeatedly, periodic blood counts and liver and kidney function tests should be performed. The usual adult dose is 30 mg *h.s.*, but 15 mg may suffice for some patients and is recommended as a starting dose for the elderly and debilitated to help preclude oversedation, dizziness or ataxia.

## Continued relief of insomnia: One more good reason to specify

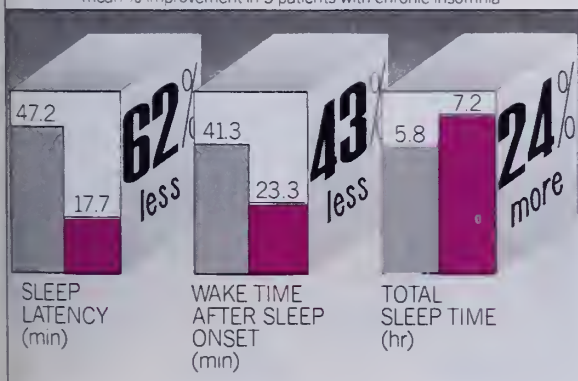
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One 30-mg capsule *h.s.* — usual adult dosage  
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elderly or debilitated patients.

## whenever a hypnotic is needed



SLEEP RESEARCH LABORATORY PROOF  
OF EFFECTIVENESS DURING 28 NIGHTS<sup>2</sup>  
mean % improvement in 5 patients with chronic insomnia



3 baseline placebo nights

Dalmane (flurazepam HCl)  
nights 1-3, 12-14, 26-28

Please see following page for a summary of product information.

New objective proof:  
continued insomnia relief without  
increasing dosage...<sup>1,2</sup>

# Dalmane<sup>®</sup> (flurazepam HCl)<sup>®</sup> IV

Objectively proved  
in the sleep research  
laboratory...

during 28 consecutive nights of  
administration:

- ☐ effectiveness with a single  
30-mg h.s. dose, maintained
- ☐ rapid sleep induction,  
maintained
- ☐ sleep for 7 to 8 hours, on  
average, maintained
- ☐ less time awake during the  
night, maintained

Before prescribing Dalmane (flurazepam HCl), please consult complete product information, a summary of which follows:

**Indications:** Effective in all types of insomnia characterized by difficulty in falling asleep, frequent nocturnal awakenings and/or early morning awakening; in patients with recurring insomnia or poor sleeping habits; and in acute or chronic medical situations requiring restful sleep. Since insomnia is often transient and intermittent, prolonged administration is generally not necessary or recommended.

**Contraindications:** Known hypersensitivity to flurazepam HCl.

**Warnings:** Caution patients about possible combined effects with alcohol and other CNS depressants. Caution against hazardous occupations requiring complete mental alertness (e.g., operating machinery, driving). Use in women who are or may become pregnant only when potential benefits have been weighed against possible hazards. Not recommended for use in persons under 15 years of age. Though physical and psychological dependence have not been reported on recommended doses, use caution in administering to addiction-prone individuals or those who might increase dosage.

**Precautions:** In elderly and debilitated, initial dosage should be limited to 15 mg to preclude oversedation, dizziness and/or ataxia. If combined with other drugs having hypnotic or CNS-depressant effects, consider potential additive effects. Employ usual precautions in patients who are severely depressed, or with latent depression or suicidal tendencies. Periodic blood counts and liver and kidney function tests are advised during repeated therapy. Observe usual precautions in presence of impaired renal or hepatic function.

**Adverse Reactions:** Dizziness, drowsiness, lightheadedness, staggering, ataxia and falling have occurred, particularly in elderly or debilitated patients. Severe sedation, lethargy, disorientation and coma, probably indicative of drug intolerance or overdosage, have been reported. Also reported were headache, heartburn, upset stomach, nausea, vomiting, diarrhea, constipation, GI pain, nervousness, talkativeness, apprehension, irritability, weakness, palpitations, chest pains, body and joint pains and GU complaints. There have also been rare occurrences of leukopenia, granulocytopenia, sweating, flushes, difficulty in focusing, blurred vision, burning eyes, faintness, hypotension, shortness of breath, pruritus, skin rash, dry mouth, bitter taste, excessive salivation, anorexia, euphoria, depression, slurred

speech, confusion, restlessness, hallucinations, and elevated SGOT, SGPT, total and direct bilirubins and alkaline phosphatase. Paradoxical reactions, e.g., excitement, stimulation and hyperactivity, have also been reported in rare instances.

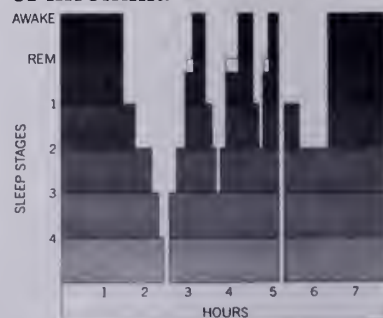
**Dosage:** Individualize for maximum beneficial effect. *Adults:* 30 mg usual dosage; 15 mg may suffice in some patients. *Elderly or debilitated patients:* 15 mg initially until response is determined.

**Supplied:** Capsules containing 15 mg or 30 mg flurazepam HCl.

## REFERENCES:

1. Kales A, et al: *Clin Pharmacol Ther* 18:356-363, Sep 1975
2. Dement WC, et al: Long-term effectiveness of flurazepam 30 mg h.s. on chronic insomniacs. Presented at the 15th annual meeting of the Association for Psychophysiological Study of Sleep, Edinburgh, Scotland, Jun 30-Jul 4, 1975
3. Kales A, et al: *Arch Gen Psychiatry* 23:226-232, Sep 1970
4. Data on file, Medical Department, Hoffmann-La Roche Inc., Nutley NJ

For all common types  
of insomnia



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Nutley, New Jersey 07110





## The Link of Health-Living

An expression that has been extremely popular since its inception via a television commercial is "when you have your health, you have everything." Few would disagree with the intended message behind that statement.

One of the most frequently asked questions of psychics, palmists and fortune-tellers, of any genre, is the one about health: Will I have good health? What of my family's health? Everyone is health conscious, even though many give more lip service to the acquiring of good health than those who actually practice it.

Health-living is tied together in all of life's activities by means of a link, the sum of its parts making for a truly "healthful state of mind and body." Each link cannot stand on its own but needs the support and continuence of the other links.

The front cover for this issue illustrates the importance of the link of health-living, particularly during this month of the year when attention is focused upon those who are returning to school. Study and research, proper sleep and nutrition, sports and recreation, environmental protection are all important links in the concept of total health living. Each is dependent on the other, in different degrees, and none can stand alone. Their combination makes for the "total person," radiant with life and energized with health and vitality.

The *Journal* wishes to thank Alice Hyde, artist, Alabama Department of Public Health, for her fine four-color layout of the cover for this issue. It is hoped that the concept of health-living promulgated by this issue will continue to grow and be nourished within the minds of the readership, thus helping to affect a more healthful outlook at the process of living.

# editorials

## After The Dust Settles

Partisan and non-partisan sides have been heard in the national health insurance debate, but what have we learned as a result? Facts have been presented from both sides, usually proposals or guesswork figures created to fit the tone of debate, figures which naturally lend credence to the particular side which is speaking.

While the debates continue and the politicians search for the best approach to NHI, recent developments cast a foreboding spectrum as to what might be expected once NHI is begun.

San Francisco's Institute for Contemporary Studies, a non-partisan research foundation, has issued a report of essays by nine academicians analyzing the various proposals for NHI. Among their conclusions:

- (1) NHI would not improve the nation's health.
- (2) NHI would dramatically increase medical costs.
- (3) Quality of patient care would deteriorate under NHI.
- (4) Even a "moderate" NHI plan would result in the eventual nationalization of American medical care.
- (5) Controls on physicians' fees would result in the rationing of physician services, with a \$17 billion cost to the economy the first year alone.

NHI advocates continue to confuse means and objectives. They state as an objective the goal of getting control of increasing health care costs. Results from the above study show their folly. You cannot increase demand without increasing cost. It looks as though the NHI advocates will return to the drawing boards once again—and again—and again.

## Talmadge Bill: An Instant Solution?

Attorney General Edward H. Levi was quoted recently as saying, "We must protect ourselves against a kind of bombardment of demand for instant solutions that keep us from working things out."

Mr. Levi was talking generally. But a mile from his office, Senator Herman E. Talmadge is pressing for just that kind of instant solution to the rising costs of Medicare and Medicaid.

A bill sponsored by him could have an adverse effect on the delivery and quality of care under those programs, without alleviating the costs.

Under the Talmadge bill, Medicaid fees paid physicians for outpatient care would be not less than 80 per cent of "reasonable" charges under Medicare. This may sound attractive, since Medicaid fees in some states presently are



## Physicians For The Day

FOR THE MONTH OF  
SEPTEMBER, 1976

*(This completes the list of physicians who served a day in the legislature during the 1976 Regular Session.)*

*Mike Weaver, M.D.  
Tuscaloosa, Alabama*

*Ethan B. Ruben, M.D.  
Tuscaloosa, Alabama*

*David M. Connelly, M.D.  
Montgomery, Alabama*

as little as 50 per cent of the Medicare figure. But are Medicare charges fair? And wouldn't the 80 per cent figure make doctors continue to bear the onus for Medicaid cost overruns?

Certainly there should be reasonable efforts to arrest the costs of Medicare/Medicaid. But many of the provisions in the Talmadge measure are a gauntlet "that keeps us from working things out" (to borrow again the words of the Attorney General).

Also under the bill, there would be two assistant secretaries of health handling the programs—including a new one to head a Health Care Financing Administration. This would include an Inspector General with authority to review and audit all health programs covered by the Social Security Act.

Such extra bureaucracy and red tape would in themselves be an expense, without adding appreciably to powers already invested in HEW.

Hospitals all across the country would be classified and categorized, under the Talmadge bill. Reimbursement patterns for Medicare/Medicaid cases would be geared to the average costs of each class of facility—despite the fact that costs largely reflect the caliber of services provided.

Obviously there would be a tendency for hospitals to peg their costs to the average, thus lowering quality.

Besides, hospitals in many states are undergoing fiscal hardships because of present payment levels under Medicare/Medicaid. ■

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ACCREDITED BY THE J. C. A. H.



# Letters to the Editor

## Unnecessary Surgery

Senator James Allen and I have recently communicated about the Congressional investigation of "unnecessary surgery."

Senator Allen was interested in obtaining the A.M.A. data which refuted these claims and for this reason I am urgently writing you to see if you might have access to this. If you do, would you please either direct this information to me or to Senator Allen's office.

Sincerely,

Robert C. Patton, M.D.

Opelika, Alabama

*Ed. Dr. Patton's request was forwarded to Mr. Joseph Breu, Director, AMA News Bureau, who supplied Sen. Allen, Dr. Patton and MASA staff with the needed materials on this subject.*

## Poster Requests Continue

Would you please be kind enough to forward a poster of the Heimlich Maneuver for our plant cafeteria?

Very truly yours,

Claude A. Betbeze

Office Manager

Marion Corp.—Refinery Operations

Mobile, Alabama

I would very much appreciate receiving free of charge two of the posters offered in the Mobile Press Register on Sunday, August 1, 1976, on the Heimlich Maneuver.

Thank you for making this offer possible to educate patrons of our cafeteria and canteen.

Sincerely,

Sister Mary Josephine

Assistant Administrator

Providence Hospital

Mobile, Alabama

Recently we have been exposed to a newspaper clipping and literature involving the Heimlich Maneuver method.

We would like more information on how to obtain your material regarding the charges and where we may order. Thank you.

Very truly yours,

(Mrs.) Sue McAdams, Secretary

to Divisional Manager of Manufacturing

Mitchell Engineering Company

Columbus, Mississippi

## Use of Stats Requested

I am writing to request permission to quote extensively and use tables and figures from the article: "Diabetic Ketoacidosis in Adolescents: A Guide to Management," (*Journal of the Medical Association of the State of Alabama*, Vol. 44, No. 9, pps. 499-518, March, 1975), to be

used in the second edition of my book, *The Adolescent Patient*. Permission has already been granted by Doctors David L. Bennett and Michael S. Ward, authors of the article.

Sincerely,

W. A. Daniel, Jr., M.D.

Professor of Pediatrics

UAB Medical Center

Birmingham, Alabama

*Ed. Permission, of course, has been granted to Dr. Daniel.*

## Lauds CME Opinion

To Benjamin B. Wells, M.D.

Birmingham, Alabama

My Dear Dr. Wells:

Your beautifully written article on Continuing Medical Education (*Journal*, Vol. 45, No. 12, p. 46) came across my desk today.

I hasten to write you, first to say how much I agree with your expressed thoughts and second to congratulate you on a difficult job well done.

The footnote at the bottom of page forty-seven is at least a hint of the obstinacy of the committee on continuing education and the diversity of opinion held by members of the governing board of our society.

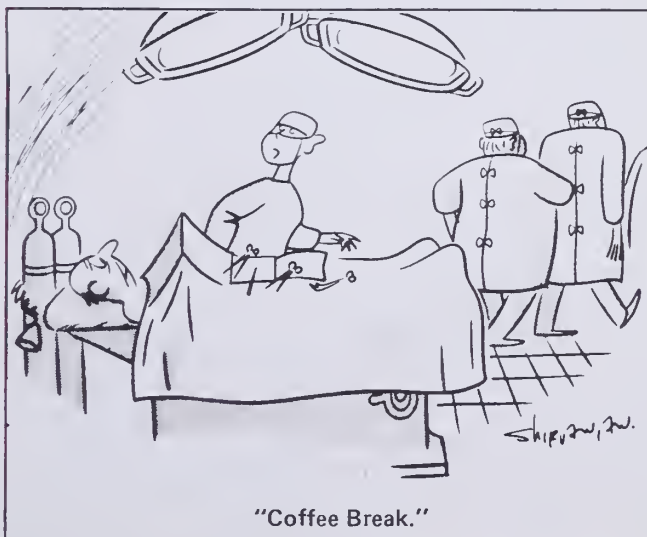
I am hopeful that at the next meeting of M.A.S.A. your thoughts will prevail and the mandatory clauses will be deleted.

Yours Sincerely,

James E. Cameron, M.D.

Alexander City, Alabama

*Ed. Dr. Cameron asked that the Journal include his letter to Dr. Wells in the "Letters To The Editor" feature. ■*



"Coffee Break."

# Beacon Lights In Alabama

From the *American Journal of Surgery*, Vol. XII, No. 3, June, 1931. Reprinted by Permission.

AS Dr. Weir Mitchell said of Benjamin Franklin, he came from Boston but was born in Philadelphia at the age of seventeen; so I say of Marion Sims, he came from South Carolina but was born in Alabama in 1835, at the age of twenty-two years.

Before coming to Montgomery Dr. Sims located at Mt. Meigs, a little village thirteen miles distant. It was a long way from the hovel of the negro slave at Mt. Meigs, Alabama, to the boudoir of the Empress Eugenie in the magnificent palace of St. Cloud where Dr. Sims had professional supervision of the Empress's health. He was especially skilled in plastic surgery, being a mechanical genius, and did successfully all of the capital operations of his day and time including those of the eye.

As an operator he was skillful, resourceful, and thoroughly self-possessed, but there was in his work none of the aggressive, dramatic clock surgery of Baron Larrey, who on that frightful field of Borodino, in 1812, amputated 200 limbs in twenty-four hours, and had 7 recoveries out of 11 shoulderjoint disarticulations. This was before the discovery of anesthesia or antisepsis, and it has been said a minute was Baron Larrey's usual time for an amputation and 25 per cent his mortality.

Dr. Sims though usually successful had his calamities. Lawson Tait in speaking of "bad luck in surgery" always mentioned Sims' operation on a case of vesico-vaginal fistula at the Samaritan Hospital in London and how six days later at the post mortem it was found he had inadvertently closed the ureters, as well as Burdon-Sanderson's discovery on post mortem that Sir Henry Thompson had left in the bladder of Napoleon III an uncrushed stone weighing  $\frac{3}{4}$  oz.

IN 1845 a woman was thrown from her horse and suffered a retroversion of the uterus and while correcting the displacement Sims discovered the effect of atmospheric pressure in the vagina that led to the invention of Sims' speculum, Sims' position, a special suture of silver wire, a catheter, and the cure of vesicovaginal fistula. This was the "tide in the affairs" of Dr. Sims "that was taken at the flood and led on to fortune."

His first three operations, all of which were successful, were performed upon negro women, Anarcha, Lucy and Betsy. The names of these three colored women will be irrevocably associated with the memory of J. Marion Sims, as will the name of Joseph Meister, the Alsatian boy, be associated with Pasteur, that of Venable with Crawford W. Long, that of Alexis St. Martin with Beaumont, and that of the twenty-five year old man with Lister upon whom, with

the aid of antiseptic system on April 11, 1868, Lister produced artificially a compound fracture into the ankle-joint and restored an absolutely useless limb.

Born the year Beethoven died, Lister's life was the exemplification of the closing lines of the great composer's immortal ninth and last symphony, "Millions loving I embrace you, to the whole world this kiss I send."

Lister, who converted surgery, a near massacre, into a healing art, left us the richest legacy of all the dead. It has been said some things are immortal: the plays of Shakespeare, the marbles of the Greeks, and the music of Wagner, and I will add the speculum of Sims; no one in eighty-five years has been able to make the slightest improvement upon it.

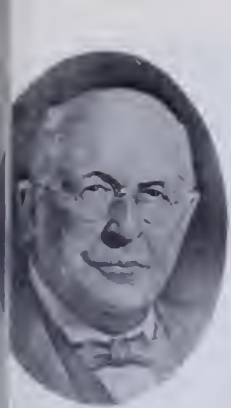
In 1861 Dr. Sims demonstrated his method of operating in most of the great cities of the world. How different was the altruistic spirit of Marion Sims from that of John Abernathy who, until Thomas Wakley appealed to the courts, lectured to his students in the dark to prevent his methods from being given by the London *Lancet* to the profession, or from that of Johannes Jacobus Rau, of Amsterdam, who dissected the bodies of the patients that Frere Jacques had lost after his lithotomies and discovered that the improved operation consisted in dividing the prostate and neck of the bladder. Rau kept this a profound secret and taught his students that he still cut through the posterior wall of the bladder, a much more dangerous operation.

ALBINUS, a pupil of Rau who had been thus deceived, taught Cheselden in England to cut through the posterior wall but Cheselden soon discarded this as unsatisfactory and devised an operation upon correct anatomical lines which he usually performed in a minute. Sir D'Arcy Power says Cheselden's operation was popular in Europe until 1885 when lithotripsy came in vogue.

It might be of interest to recall it was Cheselden's operation that Dr. Physick was taught by John Hunter and which he performed upon our great Chief Justice John Marshall, removing a thousand stones from his bladder. Of course we all know that the Liberty Bell was cracked, in 1835, while tolling for the great Chief Justice, but that was four years after Dr. Physick's operation.

Sims was a pioneer in gall-bladder surgery and gave us the name of cholecystotomy in 1878. There was in the many-sided make-up of Dr. Sims "the pert and nimble spirit of mirth." When he lived in Montgomery one of his children born on Christmas day was promptly named "Merry Christmas."





## L. L. Hill, M.D., LL.D., F.A.C.S.

Dr. Sims removed to New York in 1853 and founded the Woman's Hospital in 1855. He died in New York City in 1883. There is a statue of him in Bryant Park, New York, and a memorial tablet in Montgomery, Alabama, erected to his memory at 33 S. Perry Street where his hospital was located and where he did the first successful operation for vesicovaginal fistula. Montgomery, Ala., claims to be the birthplace of gynecology with J. Marion Sims as the parent.

Though Alabama claims Dr. Josiah Clark Nott, just as J. Marion Sims, he came from South Carolina, and was graduated from the medical department of the University of Pennsylvania, while Sims was graduated at Jefferson Medical College.

IN 1844, in the *New Orleans Medical Journal* Nott described the condition and Sir James Y. Simpson, in 1861, gave the nomenclature, coccygodynia. Samuel D. Gross says that as early as 1832 Dr. Nott first performed a coccygectomy on account of "severe and intractable neuralgia."

In 1848, in the *New Orleans Medical Journal* Dr. Nott suggested the "mosquito theory" with reference to the transmission of yellow fever, antedating Carlos Finlay by thirty-three years. In 1859, Dr. Nott founded the Medical College of Alabama and lectured on surgery. He died in Mobile in 1873.

John A. Wyeth was born in Marshall County, Ala., in 1845. He married Dr. J. Marion Sims' daughter, Florence Nightingale, in 1886, and died in New York in 1924. Dr. Wyeth was the founder of the first post-graduate medical school in the United States.

In 1890 he demonstrated his bloodless amputations of the shoulder and hip-joints, in 1903 the treatment of vascular tumors by injection of hot water, and in 1909 he was the first to cure sarcoma by streptococcus infections. Dr. Wyeth's "Text Book on Surgery" passed through four editions and greatly enhanced the author's reputation.

He was offered the chair of surgery in Tulane University upon the resignation of Dr. T. G. Richardson, the favorite private pupil of Dr. S. D. Gross in Louisville, Ky. Dr. Richardson was celebrated as an anatomist and in 1841 without anesthesia successfully amputated both legs at the hip-joint. Dr. Wyeth declined the offer saying, "It was a great temptation to go back home but my heart was in the work of building up the Polyclinic as a great post-graduate medical school."

In 1914 appeared his charming autobiography, "With Sabre and Scalpel." Dr. Wyeth was personally the most popular doctor in the United States and was honored with every great elective office within the gift of the medical

profession. There is a statue of him in his operating overalls on the Capitol grounds at Montgomery, Ala.

The Civil War ended with Dr. Wyeth at Appomattox. He was loyal to the union but he could not forget that he had once followed the stars and bars. He wrote the best biography of Lieutenant-General N. B. Forest, a negro trader who without education or military training entered the Confederate Army as a private, became a Lieutenant-General and was pronounced by Jefferson Davis as the genius of the Civil War.

WHEN William Dean Howells eulogized Mark Twain and called him the most desouthernized Southerner he ever knew, Dr. Wyeth answered that it was true, that when a lieutenant in the Confederate Army Mark Twain deserted and wrote an impudent letter to his commanding officer stating as his reason that his health had been broken down due to too much retreating.

Dr. Herny S. Levert, of Mobile, Ala., by experiments on dogs showed the innocuous character of lead, gold, silver, and platinum wire for tying arteries. In 1866 his nephew, Dr. C. H. Mastin, of Mobile, who was his assistant, successfully tied the external iliac artery with silver wire.

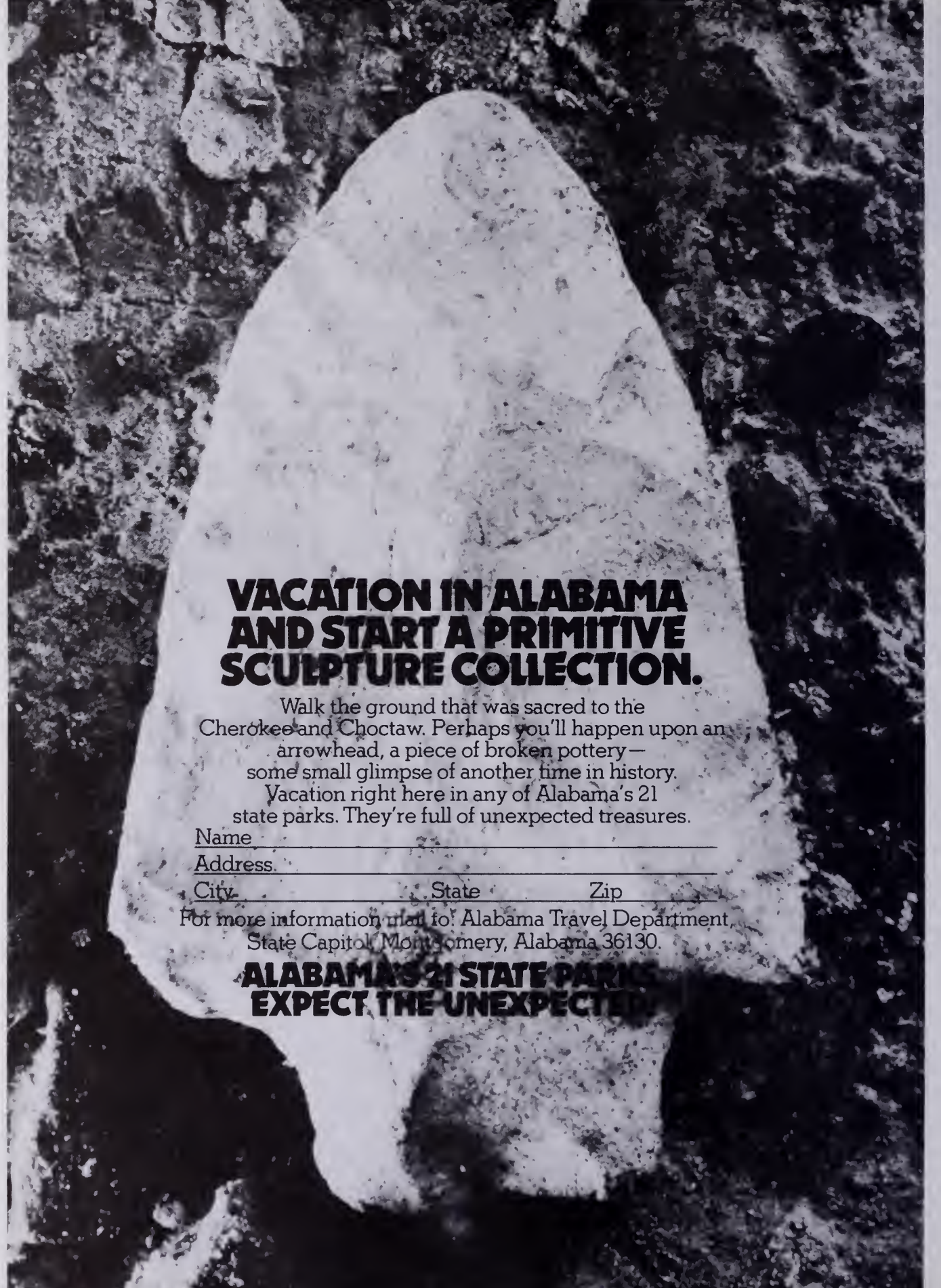
Dr. Seneca D. Powell was born in Wilcox County, Ala., in 1847. He was a Confederate soldier, in 1869 was graduated from the University of Virginia, and in 1870 from the University of New York, and became chief assistant of the celebrated New York surgeon, James L. Little.

Dr. Powell was the discover of the fact that pure alcohol instantly neutralizes the caustic effect of carbolic acid. He told his nurse to hand him a 5 per cent solution of carbolic acid with which to wash his hands, and instead she gave him the pure acid; not knowing what else to do he ran his hands down in a pan of alcohol with perfect relief. Starting from this Dr. Powell introduced the carbolic acid treatment of leg ulcers with fine results.

ALABAMA has furnished four presidents of the American Medical Association: W. O. Baldwin, J. Marion Sims, John Allan Wyeth, and W. C. Gorgas. In 1865 Samuel D. Gross came to Montgomery, Ala., to perform lithotomy and received \$2000.00, which he said was the largest fee he had ever gotten. While in Montgomery he met Dr. W. O. Baldwin, a very able man with a charming personality. Dr. Baldwin was a successful physician, first to discover quinine amblyopia, banker, financier, and an intimate friend of J. Marion Sims and William L. Yancey, the South's greatest orator. It occurred to Gross, who was then in "the noon

CONTINUED ON PAGE 20





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# The Month In Washington

**MAC**—The Maximum Allowable Cost (MAC) drug program went into effect towards the end of August with little visible activity. First signs of life will probably appear in the late fall when MAC's advisory committee will meet to consider the initial prescription drugs for the program.

Court decisions in the various counter suits, including that of the American Medical Association, are not expected anywhere in the near future.

The three-year-old brainchild of former Health, Education and Welfare Secretary Caspar Weinberger, MAC sets price ceilings on certain widely used drugs in an effort to discourage prescription of brand-name products. Physicians would have to stipulate that brand-name drugs for Medicare-Medicaid beneficiaries are medically necessary on the prescription in order to prevent the pharmacist from filling the order with the lower cost generic drug. In states with anti-substitution laws, patients would have to make up the difference in price if a brand-name is ordered.

MAC had been scheduled to go into effect four months ago, but retail druggist joined drug manufacturers and the AMA in protest, causing the four-months postponement.

Physicians for the most part will be affected with Medicaid patients, since there is no substantial outpatient benefit for Medicare drugs.

In addition to the control program, HEW will send all physicians a list of most frequently prescribed drugs along with the prices community pharmacies pay for them.

No federal sanctions are provided for physicians who decide to write out the "medically necessary" prescription message.

\*\*\*

**GOP On NHI**—The Republican Party has gone on record against compulsory National Health Insurance. The platform plank on health adopted by the delegates at the convention in Kansas City was in sharp contrast to the Democratic plank endorsing a comprehensive national plan financed by regular and Social Security taxes.

The GOP statement on health supported extension of catastrophic protection "to all who cannot obtain it." The private health insurance system should be utilized to "assure adequate protection for those who do not have it," the platform said. Such an approach will eliminate the red tape and high bureaucratic costs inevitable in a comprehensive national program."

On abortion, the Republicans supported "the efforts of those who seek enactment of a constitutional amendment to restore protection of the right of life for unborn children." The Platform conceded that the issue "is one of the most difficult and controversial of our time...undoubtedly a moral and personal issue" involving "complex questions relating to medical science and criminal justice."

The Supreme Court's ruling on abortion permitting it until the last stages of pregnancy was "an intrusion into the family structure through its denial of the parents' obligation and right to guide their minor children," said the Platform.

\*\*\*

**SEPTEMBER** is now the appointed month for the Congress to make final disposition of a great deal of unfinished health legislation. The August doldrums saw little visible Congressional action on health business. But behind closed doors much work was performed by members and staff in committee and conference meetings. However, the final shape and form of legislation such as manpower, health maintenance organizations, clinical laboratories, Indian health, variable incentive pay, and emergency medical services will not be known until the last hectic days of the 94th Congress as it rushes to adjourn and go home for the autumnal election campaigns.

\*\*\*

**Physicians' Fees**—The House Ways and Means Subcommittee on health has postponed until mid-September hearings on issues involved in increasing physicians' fees and possible revisions in the present reasonable charge reimbursement system used in the Medicare program.

The Subcommittee will hear testimony on:

Factors in the present system which influence physicians to accept assignment or to direct bill; advantages and disadvantages to requiring physicians to accept assignment in any case; factors contributing to geographic variations in physicians' reasonable charges, including differences in urban and rural charges; implications of the differences in charges between primary care physicians and specialists, and the effect of such fee differences on the selection of certain specialties by physicians; feasibility and desirability of reimbursing physicians on a fee schedule basis and the factors

CONTINUED ON PAGE 20

## THE MONTH IN WASHINGTON

which would be used to adjust the schedules to reflect the variation in physicians' cost of practice; the role of relative value scales in determining physician fees; results of experimental reimbursement programs; and comments on legislation already pending which would amend Medicare reimbursement of physicians.

The Subcommittee also will examine the issue involved in the payment of physicians in teaching hospitals under Medicare. However, Congress will not be able to act on such matters this year. ■

## MOST WOULD AGAIN CHOOSE MEDICINE

Despite increasing frustrations, seven out of ten physicians would choose medicine as a career if they had it to do over again, according to a poll in the *American Medical News*, the AMA's newspaper for physicians.

Surgeons were least inclined to enter medicine again. Specialists in radiology, internal medicine, psychiatry, pediatrics and obstetrics-gynecology were most likely to repeat their career choice.

Of those who said they would not again choose medicine as a career, the reason most often given is "too much government interference" in medical practice. Others said the working hours are too long, pressures are too great and financial return inadequate for the hours invested and sacrifice demanded. ■

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## Highlights of American Medicine



CONTINUED FROM PAGE 17

## Beacon Lights In Alabama

L. L. Hill, M.D., LL.D., F.A.C.S.

and zenith of his career and in the flush and glory of success," that to bring about good feeling in the American Medical Association a Southern man ought to be elected president at the next meeting, and Gross selected Baldwin. Dr. Baldwin's inaugural address was a classic and his administration justified Dr. Gross's selection.

Alabama Medical Association was organized under its present system in 1868. Alabama is the only state in which the Medical Association is a part and parcel of the State government. The Governor of the State is the Chairman of the State Board of Health. Semi-annually the State Board of Censors meets to examine candidates for the practice of medicine in Alabama. These examinations are very rigid.

**THE** Health Department was perfected by Dr. Jerome Cochran, a man of great learning and eminently adapted to organizations. A good many foreign doctors come annually to study our system.

The Medical College of Alabama was founded by Dr. J. C. Nott, in 1859, at Mobile, Ala. Nott went to Europe the following year and spent \$50,000.00 purchasing specimens for the museum. Dr. Nicholas Senn said that some of the preparations are "worth their weight in gold and cannot be duplicated."

In 1907 the college became the School of Medicine of the University of Alabama, and in 1920 was moved to Tuscaloosa and clinical teaching discontinued.

The Alabama Surgical and Gynecological Association was founded by Drs. John and Elias Davis, of Birmingham, Ala., and held its first meeting in that city, in 1888, with Dr. W. D. Haggard, Sr., of Nashville, as President and Dr. Elias Davis as Secretary. The name was subsequently changed to Southern Surgical Association. A few years ago when the association met in Birmingham it erected in Wilson Park a statue in memory of Dr. Elias Davis.

On May 17 the profession of Alabama lost one of its most popular and distinguished members, Dr. John Davis, of Birmingham, and it was a sad day for me as, to use an expression of Lord Balfour, the roots of our friendship went down into the same past for more than fifty years. Dr. Davis was terribly mangled in an automobile accident and with more than a hero's courage, with more than a martyr's fortitude he bore his suffering, and met the inevitable end that awaits each and all.

"Green be the turf above thee  
Friend of my better days  
None knew thee but to love thee  
Nor named thee but to praise."



# Diphtheria Fades

**DIPHTHERIA** is almost gone in North America today. Immunization has virtually wiped out the disease that in the nineteenth and early twentieth centuries was the dread killer of thousands of young children each year.

Diphtheria is an acute, contagious and infectious disease caused by the diphtheria bacillus. It affects the throat primarily, but spreads through the body. The illness is severe and, in the pre-immunization years, was often fatal. Today, there are less than 300 cases a year in the United States, almost all in unprotected children. And modern treatment techniques save most of those few remaining children who contract the disease.

The first description of what was likely diphtheria is found in writings shortly after the birth of Christ, but the first full description appeared in England in the eighteenth century.

The early laboratory work that pointed the way to treatment and prevention of the disease was done in Europe. The bacillus was first isolated in Germany in the 1880s and a German discovered the diphtheria antitoxin in the 1890s. American doctors promptly picked up the discovery and began producing the antitoxin in quantity and protecting children who had been exposed.

**IN FACT**, American physicians in the big cities pointed the way for the Europeans. The diphtheria chart death line turns down abruptly in New York about 1929-30. In England and Wales the turndown came in 1941-42.

The antitoxin was an important discovery and saved many lives, but the real possibility of prevention came in 1923 when a toxoid that produced longer lasting immunity with fewer adverse reactions became available. This followed by a few years the important development of the Schick Test, a skin reaction observation that determined individual immunity.

An important adjunct to solving the problem of diphtheria in children was the life of physicians and nurses who cared for the young patients in the early epidemics. Dr. William Osler wrote that "few diseases have proved more fatal to physicians and nurses in the past."

In 150 cities of the United States before the general use of antitoxin, the mortality rate in 183,000 cases was 38.4 percent. But after antitoxin, the death rate dropped to 2.3 per 100,000. Diphtheria cases continued to decline through the 1940s, 50s and 60s. In the four years of 1970-74 the median was 224 cases a year, with virtually no deaths.

However, control of diphtheria depends heavily on the nation keeping up its immunization program. This was illustrated in 1970 with a flareup in a city in Texas after slackening of the toxoid immunization.

**AN EARLY AMERICAN** pioneer in making and using the diphtheria antitoxin was William H. Park, M.D., of the New York City Health Department. Herman Biggs, M.D., of the same office, was in Europe in 1894 when the first public announcement was made of the development of the antitoxin. Dr. Biggs at once advised Dr. Park, who promptly began work to make it in New York. There were at the outset no funds. The New York Herald made a public appeal, which brought in \$7,000 to get the program started. The antitoxin was first used in the United States in 1895 in

a serious outbreak of the disease in the Mount Vernon Branch of the New York City Infant Asylum. It stopped the epidemic.

The antitoxin was used for a quarter of a century, until it was replaced by the much more effective toxoid for immunization.

In addition to the preventive products, modern antibiotics are effective in treating diphtheria, and are an important factor in reducing the death rates for those few children who do become ill. ■

## Cortisone Brings Relief

Rheumatoid arthritis cannot be cured yet. But in 1948 two men made a discovery that has at least brought a measure of relief to many of the millions of Americans suffering from the disease.

At first the study of the various forms of arthritis produced little useful information. One fact, however, remained clear. Persons suffering from arthritis almost inevitably showed a marked improvement if they became afflicted with jaundice. Too, a woman with arthritis would feel her condition ease if she became pregnant.

With little else to go on, Edward C. Kendall, Ph.D., and Philip Hench, M.D., both of the Mayo Clinic, made the first major breakthrough in arthritis research.

Dr. Hench was convinced that pregnant women secreted a cortical hormone that temporarily helped relieve symptoms of arthritis. He did not, however, have a hormone to use. Dr. Kendall had succeeded over several years in isolating six steroids or hormones secreted by the adrenal glands, designating them as A through F.

Both men believe the answer lay in the fifth of these steroids, compound E.

On Sept. 21, 1948, at Mayo Clinic Dr. Hench administered compound E (later called cortisone) to a 29-year-old woman bedridden from rheumatoid arthritis. For two days, she showed no change, but on the third day was able to roll over in bed for the first time in weeks. Four days later, the former cripple was on her feet and out shopping. Trials of cortisone on 13 other arthritic patients, all severely incapacitated, had similar effects.

**MEANWHILE**, teams of biochemists at Yale and the University of California succeeded in extracting ACTH, the hormone governing activity of the adrenal cortex, from the pituitary glands of livestock. When Dr. Hench tried ACTH on arthritic patients, the same dramatic results followed.

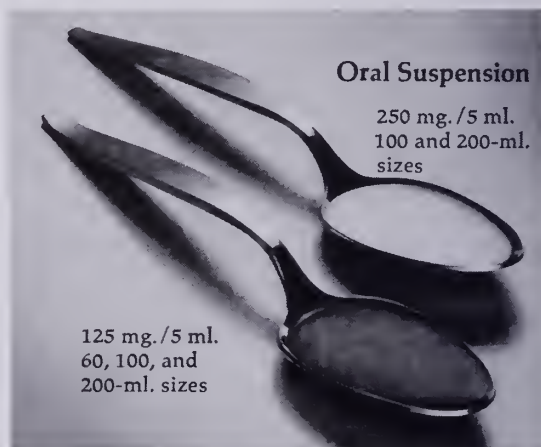
In 1950, Philip Hench, Edward Kendall, and Tadeus Reichstein, a Swiss scientist who isolated the first pure adrenal steroid, were awarded the Nobel Prize for their work on the treatment of rheumatoid arthritis.

Their discovery and initial testing have given rise to a greater understanding of the disease, long thought to be connected with local infections, malfunctioning tonsils and even teeth, and to the development of new drugs, such as hydrocortisone and prednisone.

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# Aspirin, Liver, And Rheumatic Diseases

James T. Halla, M.D.\*

MUCH has been written recently concerning salicylates and abnormal liver functions in various rheumatic diseases, specifically juvenile rheumatoid arthritis (JRA), adult rheumatoid arthritis (RA), and systemic lupus erythematosus (SLE). The etiology of this dysfunction may be related to a direct toxic effect of aspirin, activity of the disease, or some unrelated hepatic pathology.

This paper is a summary of our knowledge concerning the experimental and clinical effects of aspirin. The discussion will include: (1) the biochemical effects of salicylates, (2) the clinical data, and (3) considerations of possible mechanisms of pathogenesis.

## Biochemical and Metabolic Effects of Salicylates

The effects of salicylates on cell metabolism has been well documented. The observation that salicylates uncouple oxidative phosphorylation, thereby decreasing the availability of useful energy, dates to the 1950's<sup>1</sup>. Sproul has shown an increased rate of O<sub>2</sub> consumption in mouse liver slices with graded concentrations of sodium salicylate<sup>2</sup>. Furthermore, these changes, associated with near disappearance of creatine phosphate and a 50% decrease in ATP, were observed at salicylate levels in the range of 30 mg%, i.e., comparable to that obtainable in therapeutic situations<sup>3</sup>.

Attempts have been made to relate this metabolic activity to enzymatic changes occurring upon salicylate exposure. Upon intraperitoneal injection of salicylate in the rat, blood xanthine dehydrogenase increased with concomitant decrease in hepatic activity of the enzyme<sup>4</sup>. Similarly, transaminase elevations were found 13-33 days following salicylate injections in 6 of 8 rabbits. Hepatic histology revealed only cloudy swelling in 1/3 and normal histology in 2/3 of the experimental animals<sup>5</sup>. Chronic salicylate administration produced histologic changes in the liver consisting of glycogen depletion of hepatocytes and minimal portal inflammation predominantly of round cells. Assays of liver tissue revealed a decrease in activity of several enzymes. These structural and biochemical changes returned to normal within ten days after stopping salicylates<sup>6</sup>.

Therefore, both *in vivo* and *in vitro* laboratory studies provide evidence of the occurrence of metabolic and structural dysfunction secondary to salicylates. These effects are dose dependent and generally occur with salicylate levels greater than 25 mg%. Biochemical changes are out of proportion to structural changes, are quickly reversible and seem to be independent of the form of salicylate given.

## Clinical Observations

Although data concerning abnormal liver function tests with salicylate ingestion are available in various rheumatic diseases, most information deals with rheumatic fever (RF) and JRA.

It has been known for some time that children developed SGOT elevations during salicylate therapy in RF, and a possible myocardial origin was considered. Manso et al. explored SGOT/SGPT levels in 23 children with RF. Thirteen of 23 patients had SGOT/SGPT elevations within 2 to 3 weeks. The liver function tests returned to normal within one week of salicylate termination. Although no salicylate levels are reported, these authors find no consistent relationship between salicylate levels and enzyme activities in serum<sup>7</sup>.

Russell et al studied 32 polyarticular JRA patients ranging in age 2 years to 15 years, and found that eight patients had SGOT/SGPT elevations, all having salicylate levels greater than 27 mg%. In addition, two patients had hepatomegaly and two had elevated alkaline phosphatase. In all patients, liver function tests returned to normal within one week of discontinuing the drug<sup>8</sup>.

Iancu evaluated 14 patients with RF and 3 patients with JRA; he found 10 RF patients and 2 JRA patients had elevations of SGOT/SGPT. The earliest increase of SGOT occurred at 10 days with usual elevations at 2-3 weeks. No patient was ill and 2 patients had mild hepatomegaly. All had prompt return of liver function tests to normal within 5 days<sup>9</sup>.

RICH AND JOHNSON reported 6 JRA patients, ages 12 to 21 years, who were treated with ASA, sodium salicylate and choline salicylate. All had active JRA with ASA levels greater than 25 mg%; 4 of 6 patients had hepatitis symptoms; only 1 of 6 had hepatomegaly; 4 of 6 had increased alkaline phosphatase. Liver biopsy in 2 patients revealed only portal triad mononuclear infiltration<sup>10</sup>.

Athreya et al. studied 34 patients with JRA over 1-27 months, and found that 65% developed elevations of SGOT/SGPT (3 of these 22 patients had marked elevations [ $>400$  units] of SGOT associated with abnormal partial thromboplastin time but no hepatomegaly). Liver abnormalities appeared at various intervals, some as long as 3-18 months after ASA therapy was initiated, but did return to normal, although sometimes in a fluctuating fashion. Continuation of ASA therapy did not seem to cause deterioration of biochemical parameters<sup>11</sup>.

From the studies concerning JRA and RF it is frequent to find liver function abnormalities, but this does not seem to be related to disease activity. There is only a rough correlation with a salicylate level at any one time. Sometimes liver abnormalities occur at ASA levels of less than 12

\*Division of Clinical Immunology and Rheumatology, UAB, 444 Spain Rehabilitation Center, 1717 6th Avenue South, Birmingham 35294.

	Dosage/ Duration	Assoc'd with Disease Activity	Onset of Abnormalities	Recovery	Hepatitis Symptoms
RF	Usually shorter duration with intermediate dose	No	Weeks	All	None
JRA	usually shorter duration with	No	Weeks; maybe 3-18 mo.	All	May be severe but reversible
SLE	Intermediate dose with shorter duration	Yes	Days to weeks	All	Can mimic CAH or acute hepatitis
RA	maximum dose with longer duration	No	Slowest	All	None

mg%. There is a definite parallel of liver abnormalities with increasing ASA dose. The increase SGOT/SGPT usually occurs within 2 weeks but may be delayed; there are biochemical changes with mild histologic findings; there usually is a quick return of liver function tests to normal, although elevations may persist.

Not nearly as much information has been published regarding aspirin hepatotoxicity in SLE and adult RA, although a series of articles appeared concerning this subject<sup>12,13,14</sup>. The points made were the following: (1) ASA in SLE can alter liver functions, (2) liver biopsy may show a mononuclear infiltrate in the area of the portal triad as is seen in chronic active hepatitis or the pediatric aged cases as described earlier, (3) the onset of liver function abnormalities parallels ASA therapy, and (4) dysfunction promptly returns to normal with cessation of aspirin. It is clear that in adult RA, liver function abnormalities occur (3/18 in one study) but this seems disproportionately lower than one would expect with the number of RA patients receiving aspirin therapy. Although these changes may relate to the duration of ASA therapy and dosage used, they are reversible and appear to be unrelated to disease activity.

ASA can and does induce hepatotoxicity in both animals and humans through a spectrum of rheumatic diseases. Several points are noteworthy:

1. Abnormal liver function tests may occur irrespective of type of salicylate preparation.
2. Onset of liver abnormalities usually occurs within 2-4 weeks, but may be delayed in JRA by 3-18 months.
3. All liver abnormalities return to normal with termination of ASA, although in some, in a fluctuating manner. (See Chart Above).

### Pathogenesis

To understand ASA-induced hepatotoxicity, one must consider intrinsic toxicity of the agent, idiosyncratic reaction, and hypersensitivity. If there is a low incidence of hepatic involvement, not dose related, and not reproducible in experimental animals, one tends to suspect an idiosyncratic reaction. Hypersensitivity is the assumed mechanism if there is a fixed latent period, associated blood or tissue eosinophilia or other signs of an immune reaction (fever, urticaria, etc.). There is one study<sup>10</sup> with reports of peripheral eosinophilia, but not other evidence for hyper-

sensitivity. Evidence does exist for direct toxicity of ASA upon cell metabolism, using both tissue extracts and mitochondrial systems. Whether the toxicity is related to salicylate or a metabolite is uncertain.

The duration of ASA ingestion seems to be significant, although liver abnormalities have been described within one week of ASA ingestion<sup>11</sup>. Undoubtedly, the functional status of the liver is important when one considers the onset of toxicity in relation to dosage and duration of ASA therapy. Related to this are the observations of Okumura et al.,<sup>15</sup> indicating that patients with pre-existing liver disease were more likely to have abnormal liver tests. They had 20 patients with various liver diseases and 17 control adults; all received 2 grams ASA a day for 5 weeks. Abnormalities of liver tests were noted in 11 of the 20 patients with pre-existent liver disease; no changes were noted in controls. Little is known concerning chronic ASA administration in normal volunteers, although it is stated that acute administration of both i.v. and p.o. ASA results in no hepatic abnormalities<sup>16</sup>.

Several papers have appeared which suggest a subclinical hepatitis in connective tissue diseases. This was based on the occasional presence of anti-mitochondrial antibodies which was 8% in systemic lupus erythematosus, 1-2% in uncomplicated rheumatoid arthritis and 6% in Sjogren's syndrome. However, in most clinical studies of RA and SLE, biopsy findings and clinical evidence of hepatic disease are uncommon<sup>16-19</sup>.

**USING ISOTOPE** dilution techniques, a group in Copenhagen showed that patients with rheumatoid arthritis have a decreased cholic and deoxycholic acid pool, as well as a decreased total bile acid pool. Such decreased synthesis of cholic acid is a sensitive indicator of hepatocellular damage, and was found in the face of normal liver functions<sup>21</sup>. In JRA, it is thought that acute hepatic dysfunction may be an integral manifestation of the active febrile form of the disease. The hepatomegaly is concomitant with disease activity and resolves with remission<sup>21,22,23</sup>. Hepatic involvement in RA may also be on the basis of drugs (ASA, gold, Indocin), active disease, CHF with passive congestion, and amyloidosis.

Thus, it would appear that subtle liver abnormalities may be found in connective tissue diseases. It is tempting to suggest patients are more susceptible to ASA ingestion, especially if the ingestion is prolonged; also it is apparent



that abnormal liver parameters occur with active disease (juvenile rheumatoid arthritis) and hepatomegaly is a frequent accompaniment that remits with disease remission. The liver histology found in aspirin induced liver abnormalities is a periportal mononuclear infiltration with none to minimal focal necrosis—very reminiscent of the entity chronic persistent hepatitis. It would appear this is a nonspecific hepatic response of little consequence.

It would appear that salicylate-induced hepatotoxicity is

a real entity, and it appears to differ from reactive hyperplasia, which may be seen in active JRA. There are hints of subclinical hepatic dysfunction which is amplified by ASA therapy, but what is lacking is a long term study of normal volunteers. One should be aware of this entity and make necessary adjustments in ASA dosage if one finds an abnormal liver function test. At any rate, ASA hepatotoxicity is reversible and does not preclude future ASA therapy.

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## AUXILIARY PRESIDENT

CONTINUED FROM PAGE 53

Board of Education on June 17, 1976. We commend them for this momentous step.

### Resolution on Health Education

*WHEREAS, research indicates that many of the diseases and illnesses common among the general population can be prevented through the application of health knowledge; and*

*WHEREAS, the more complex civilization becomes the more each person must depend on the processes of education for guidance:*

*NOW, THEREFORE, BE IT RESOLVED That the Alabama State Board of Education urge that comprehensive Health Education be taught sequentially by qualified teachers in every school under the authority of the State Department of Education: and*

*BE IT FURTHER RESOLVED That the instruction and supervision of the comprehensive health programs shall be under the administration of the State Department of Education; and*

*BE IT FINALLY RESOLVED That the Alabama Health Education Curriculum Guides, Grades K-6 and Grades 7-12, be used as a guide for the health instruction programs.*

Representing the medical auxiliary on the State Task Force on Legislation is Mrs. Lewis S. Young (Totsie) of Birmingham, and serving with Dr. Robinson on the School Health Education Coordinating Committee is Mrs. O. B. Carr, Jr. (Mary) of Sylacauga. Totsie and Mary serve as co-chairmen of the auxiliary's Health Education Committee. We feel it is our responsibility to continue to assist and to seek to coordinate all available resources in bringing about a worthy program of education to protect and conserve the health of all citizens.

Truly our hope lies in our children. Their good health is their most precious possession and it depends on us. It is the personal dream of this president to see a place of learning — a Hall of Health — a Museum of Medicine and Biology — as part of our great Medical Center and University Complex in Birmingham — or in any city in Alabama — where young and old may gather and learn from push-button displays, transistorized touch-and-feel models, and all sorts of visual aids.

"Our children are not our children. They belong to the world." So spoke the Prophet. It is our prayer that we give them to the world with healthy minds and bodies. ■

## CROSSING SPECIALTY LINES

As two surgeons were leaving the operating room, one turned to the other and said, "That was close. An inch either way and I would have been out of my specialty." ■

# Diarrhea

Thomas W. Sheehy, M.D.\*

"Diarrhea is the ruin of most things; empires, expeditions, and everything else."

Thomas D. Quincey—1823

## INTRODUCTION

Diarrhea is one of man's oldest known and most distressing illnesses. In this country, diarrhea is usually self-limiting and seldom lasts more than two to five days. Diarrhea of longer duration, i.e., more than three or four weeks, is either the result of a serious disorder or a functional state, known as "irritable colon."

Diarrhea has been defined as a change in the frequency, fluidity, or volume of stool. In certain parts of the world, it is almost a part of living.

Clinically, diarrhea may be designated as "functional" or "organic." **Functional diarrhea** is characterized by an increase in bowel movements during the day and an absence of blood, pus, or visible fat in the stools. Initial solid stools may be followed by progressively more liquid stools. Often there is a tendency to have pencil-thin or small stools and alternating constipation and diarrhea. Features suggestive of organic disease are absent and there is no appreciable weight loss.

**Organic diarrhea** is characterized by a loss of synchronization of bowel movements with the clock. Often patients have nocturnal diarrhea and/or are awakened from sleep by the urge or need to defecate. Blood, pus, and fat may be found in the stool. Systemic findings may be present, such as anemia, finger-clubbing, arthritis, weight loss, etc.

Mucus is a non-specific finding and may appear in the stools of patients with either functional or organic diarrhea. Its presence reflects increased goblet cell activity and bowel irritation.

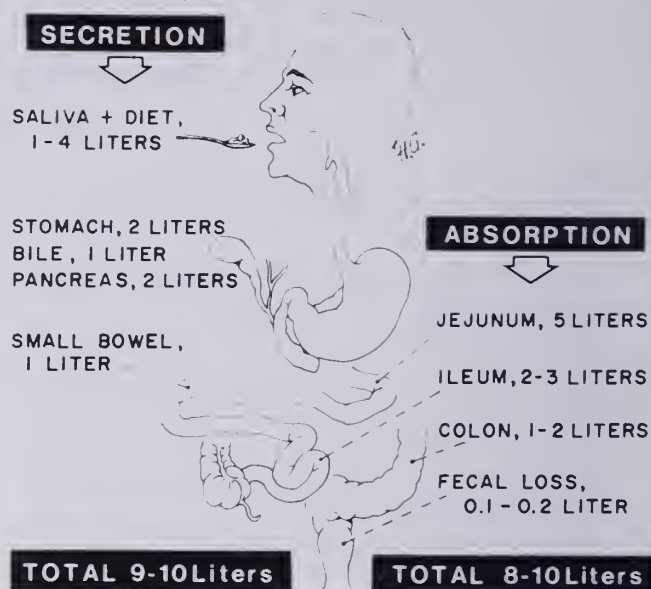
## Physiology of bowel fluid and electrolyte absorption and secretion

Since the water and electrolyte content of the stool is generally increased or altered in diarrhea, knowledge of the normal contents is essential to an understanding of the diarrheal state:

a. **Water.** Increased stool water content is the sine-que-non of diarrhea. This increase results from either impaired fluid absorption or from increased mucosal secretion into the lumen. In our society, the mean daily stool weight varies from 100 to 200 grams of which 60 to 80 per cent is water. With diarrhea, stool water increases to 70 to 90 per cent of the overall weight<sup>1</sup>.

Since water absorption is a passive phenomenon, it is always linked to active salt transport. Interference with the latter can have significant effects. Water always follows

FIGURE 1. FLUID SECRETION AND ABSORPTION IN NORMAL ALIMENTARY TRACT



the movement of sodium. In turn, sodium absorption is facilitated by the presence of glucose. In fact, glucose cannot be absorbed from the bowel lumen unless sodium is present in the solution.

Figure 1 shows the approximate volumes of fluid entering and leaving the lumen of the gastrointestinal tract daily. Only a relatively small volume of chyme, 0.8 to 1.0 liter daily, of the 8 to 10 liters entering the bowel, passes beyond the ileo-cecal valve<sup>2</sup>. Seventy-five per cent of fluid entering the bowel is absorbed during passage through the small bowel to the ileo-cecal valve.

Normal stool contains only 0.1 to 0.2 liter of water yet over a liter reaches the large bowel. Therefore, the colon must be a net absorber of water. Even so, an active bidirectional flux of water occurs in the colon, i.e., both fluid absorption and secretion occur simultaneously. Fluid absorption, however, exceeds secretion thereby allowing concentration of colonic luminal fluid. Actually, the colon can absorb up to 2 liters of fluid within 24 hours but when this limit is exceeded, stool water increases and diarrhea ensues.

b. **Electrolytes.** Electrolytes, too, are both absorbed and excreted by the small bowel and the colon (Fig. 2). Intestinal fluid entering the colon contains about 125 mEq/L of sodium, 9 mEq/L of potassium, 60 mEq/L of chloride, and 74 mEq/L of bicarbonate. Colonic sodium and chloride absorption is so efficient that stool electrolyte concentrations are reduced to 40 mEq/L of sodium, 2 mEq/L of chloride, and 30 mEq/L of bicarbonate (3-5). Ordinarily, stool sodium (40 mEq/L) is less than the plasma sodium concentration, whereas stool potassium (90 mEq/L) greatly exceeds plasma levels. High stool potassium levels are the result of rapid water absorption and active potassium secretion by the colon.

Dietary sodium has little effect on colonic sodium

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absorption but adrenal hormones cause a significant increase in sodium absorption by colonic mucosa. It is this hormonal influence that allows man to tolerate low sodium diets for prolonged periods. Following colostomy, low sodium diets are handled poorly because colonic conservation of sodium and water is impaired.

c. **Mucosa.** Recent studies have shown small bowel mucosa serves both as an absorptive and secretory organ. Absorption occurs primarily through the epithelial cells lining the villi, while secretion is effected mainly by the crypt cells. It has been proposed that certain diarrheal diseases result from an overgrowth of immature secretory crypt cells onto the villi.

**Fluid and Electrolyte Changes with Diarrhea.** The water and electrolyte composition of diarrheal stools depends upon the factors initiating diarrhea, the area or areas of intestine involved, and the type of number of bacteria present within the bowel lumen or intestinal mucosa.

In a sense, diarrhea is water malabsorption. An excess of 100 or 200 ml of daily fecal water, representing only one to three per cent of the total fluid volume handled daily by the gastrointestinal tract, is enough to alter both the frequency and the consistency of stools.

In most diarrheal states, stool sodium and chloride concentrations rise while potassium levels fall. With cholera there is a tremendous water loss. As a result, fecal electrolyte concentrations almost reach plasma levels. Fecal sodium and potassium loss are usually related to volume flow. In fact, sodium loss is directly proportional to the severity of the diarrhea.

During diarrhea, fecal sodium and potassium concentrations exceed the fecal chloride content. However, in the rare syndrome known as "congenital chloridorrhea," fecal chloride concentrations exceed the sum of both sodium and potassium.

During diarrhea, stool bicarbonate concentration is related to food ingestion. In general, if a patient *eats*, his stools have a *low* bicarbonate content. In contrast, *high* fecal bicarbonate levels are found if the patient *fasts*.

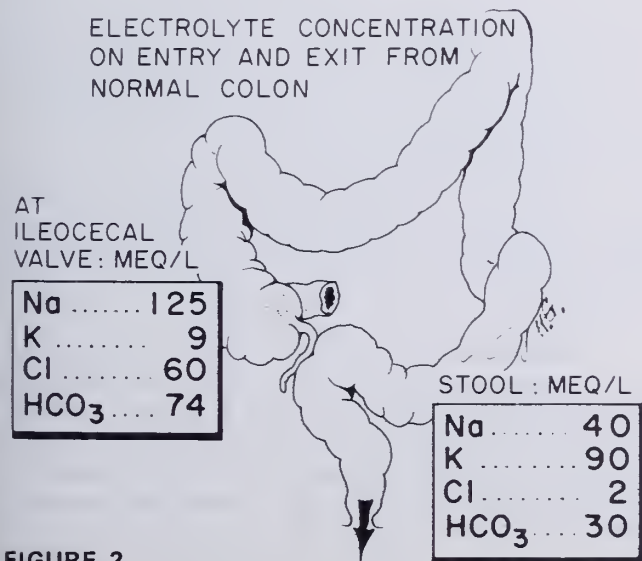
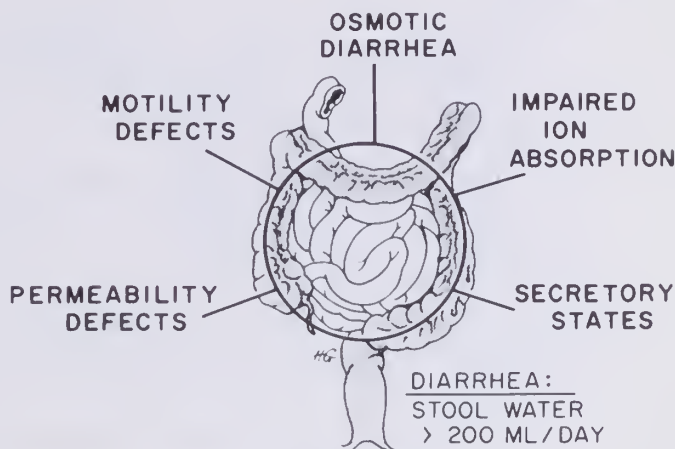


FIGURE 2.

FIGURE 3. MECHANISMS OF DIARRHEA



Bicarbonate ions react with organic acids of bacterial origin to form sodium salts. Therefore, an increase in carbohydrate intake leads to increased production of short chain acids. As more acid is produced, more bicarbonate is needed to form salts. As a result, stool bicarbonate levels fall with increased food intake.

#### Pathogenesis Of Diarrhea

The five known mechanisms responsible for diarrhea are shown in Figure 3.

1. **Osmotic diarrhea** is extremely common and results from: (a) ingestion of poorly soluble substances, such as laxatives; (b) maldigestion of foods, e.g., lactase deficiency; and (c) failure of transport<sup>3-5</sup>.

Non-absorbable, water soluble molecules exert an osmotic effect within the bowel lumen that causes a net movement of water from plasma to lumen. Osmotic laxatives increase fecal water as a result of incomplete absorption of polyvalent ions, such as magnesium, phosphates, or sulfate.

Lactose intolerance is a good example of osmotic diarrhea. In this condition, there is insufficient (enzyme) lactase to split the ingested disaccharide, lactose into glucose and galactose. As a result, an increased concentration of nonabsorbable lactose pools in the bowel lumen. This impairs water absorption while fluid is secreted into the lumen to achieve isotonicity. Osmotically, ten grams of a disaccharide is equal to about 100 ml of water and there are about 12 grams of lactose in an eight ounce glass of milk.

In the colon, undigested lactose is fermented by bacteria into short chain acids and gases, (H and CO<sub>2</sub>). These short chain acids increase acidity and lower the pH below 6.0.

When the patient stops ingesting foods containing lactose, the diarrhea ceases.

Stool sodium concentrations remain lower than plasma levels in osmotic diarrhea because both the ileum and the colon continue to absorb sodium against a concentration gradient. Thus, while non-absorbable substances such as lactose, retard water absorption, they fail to disrupt sodium absorption.

**TABLE 1 SECRETORY DISORDERS**

**Exogenous:**

**Toxicogenic Diarrhea:**

*Vibrio cholera*; *Escherichia coli*; *Shigella dysenteriae* I; *Clostridium perfringens*; *Staphylococcus aureus* strains.

**Invasive Diarrhea:**

Strains of *salmonella*, *Shigella*, *Escherichia coli* and *Entamoeba histolytica*.

**Laxative Abuse:**

Anthraquinone.

**Endogenous:**

**Deconjugated and Dehydroxylated Bile Acids:**

**Colon:**

Ileal resection or bypass; regional enteritis distal ileum.

**Small Bowel:**

Bacterial overgrowth; diabetic neuropathy; scleroderma; blind loop.

**Hydroxy Fatty Acids:**

Pancreatic insufficiency; celiac disease—tropical sprue; post gastric surgery.

**Impaired Electrolyte**

**Transport:**

Colectomy

**Neoplasm:**

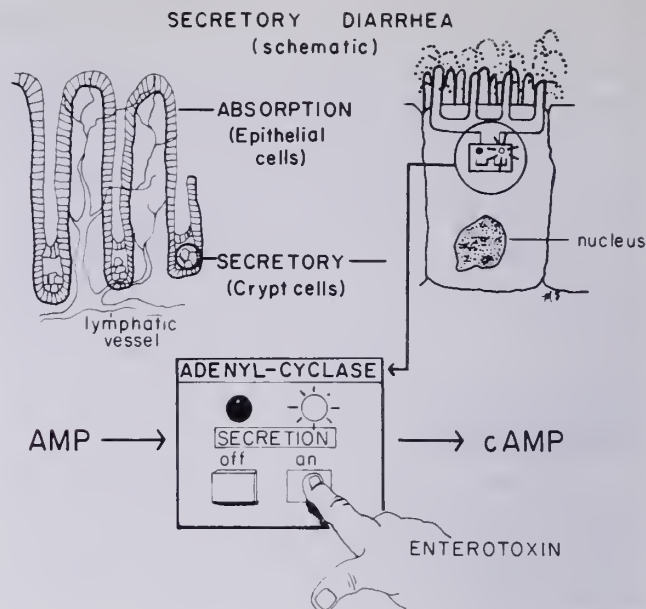
Pancreatic islet cell tumors—Vasoactive (polypeptide (VIP); medullary carcinoma thyroid—(Calcitonin); villous adenoma—(Secretin).

2. **Secretory diarrhea.** Gastrointestinal secretion is augmented by (1) increased hydrostatic or tissue pressure due to volume expansion; (2) decreased intestinal absorption associated with a high rate of normal intestinal secretion; and (3) active ion secretion by mucosal cells<sup>6,8</sup>. Table 1 outlines some of the more common causes of secretory diarrhea.

Increased hydrostatic pressure is responsible for the secretory diarrhea caused by chronic inflammatory bowel disease and Salmonellosis.

Active ion secretion is now considered one of the most important causes of diarrhea. It is the mechanism responsible for diarrhea due to *vibrio cholera* and enteropathogenic *E. coli* infections as well as vibrioparahaemolyticus, clostridial and streptococcal food poisoning. In these entities there is little mucosal inflammation but there is considerable alteration in tissue permeability. Glucose, salt, and amino acid absorption continue because these are villous cell functions while increased secretion is due to altered crypt cell function.

From studies of cholera, it was learned that intestinal secretion is mediated through high intracellular concentrations of cyclic AMP. Presumably, enterotoxins increase cyclic AMP by stimulating production of the enzyme, adenylyl-cyclase, which converts adenosine triphosphate



**FIGURE 4:** This schematic drawing emphasizes the secretory function of the crypt epithelium, and reflects the capacity for enterotoxins to increase the production of adenylyl cyclase, the enzyme that converts AMP to cAMP, the regulator of cell secretion.

(ATP) to cyclic 3'5'adenosine monophosphate (cAMP) which stimulates secretion<sup>9</sup>. (Figure 4).

In cholera, the entire small bowel but not the colon secretes in response to the toxin. This secretory response begins 15 to 20 minutes after administration of cholera toxin to experimental animals. It occurs in association with marked electrolyte loss, so that the stool electrolyte composition is almost identical to plasma electrolyte concentrations in severe cholera. These secretory changes occur in the face of normal sodium and water absorption.

Enterotoxin *E. coli* diarrhea, one of the major causes of acute diarrhea in adults and children, is the result of a similar biochemical lesion. Usually, the disorder is less severe because *E. coli* organisms have more difficulty surviving in the small intestine than *V. cholera*<sup>10-12</sup>.

With the exception of the Zollinger-Ellison Syndrome, all secretory diarrheas are of small or large intestinal origin. In the ZE syndrome, secretion occurs primarily in the stomach and consists mainly of hydrochloric acid. The excess gastric acid impairs pancreatic enzyme activity, alters the jejunal pH, induces a jejunitis, inhibits sodium absorption, and impairs bile salt activity.

It has been postulated that certain viruses may induce secretory diarrhea by causing rapid generation of crypt cells. These immature crypt cells overgrow mature epithelial cells on the villi where they continue their secretory actions.

3. **Impaired ion absorption.** Congenital chloridorrhea is the prime example of this type diarrhea. Children with this disorder are unable to absorb chloride actively, although passive chloride absorption continues. As a result, chloride-bicarbonate exchange is impaired. Secreted bicarbonate cannot be exchanged for chloride. Consequently, fluid absorption is impaired; there is acidification of the luminal contents and chloride concentrations in the ileum,



colon, and stool are high. Stool chloride concentration exceeds the sum of sodium and potassium concentrations and this leads to systemic alkalosis.

4. **Mucosal permeability defects.** Abnormal mucosal permeability occurs in many diseases. Tropical and celiac sprue are primary examples. The marked mucosal surface loss in these entities leads to malabsorption. Mucosal permeability for water and electrolytes is also impaired because the effective pore size in the proximal bowel is decreased from 6.5 to 3.5A.

5. **Motility defects.** Impaired intestinal motility promotes stasis and bacterial overgrowth. Increased motility leads to rapid transit of food and to impaired absorption due to inadequate mucosal contact time. The irritable colon syndrome is probably the best example of deranged intestinal motility.

Stasis occurs in the "blind loop syndrome." The resulting stagnation leads to proximal movement of bacteria with resultant bacterial deconjugation of bile salts. Bile salts further after motility and injure the bowel mucosa.

Diagnosis

Clinical Patterns of Diarrhea

Small bowel diarrhea is characterized by light, colored, watery, soupy, or greasy appearing stools, the presence of undigested meat particles, and large volume. Associated pain is usually referred to the periumbilical or right lower quadrant or is diffuse. Usually the pain is cramp-like and intermittent and is often accompanied by audible borborygmi.

Large bowel diarrhea is characterized by small stools, frequent urge to defecate, the present of blood or pus, and excess flatus. Associated pain usually occurs in the left lower quadrant, sacral region, or a specific spot. The feces may be mushy or jelly-like, and may contain pus, mucus, or blood. Tenesmus suggests rectal disease.

While these types of diarrhea are often thought to reflect underlying pathology in the large or small bowel, they are not mutually exclusive and either type may occur with large or small bowel disease.

Useful Questions:

The following questions are often helpful in determining the cause of diarrhea:

"Is there an epidemiologic Pattern?" Diarrheal epidemics occur in mental institutions, childrens' hospitals, etc., where person to person contact occurs readily. The occurrence of diarrheal outbreaks at school, in the community, following picnics, etc., is important.

"Can an incubation period be inferred?" Food poisoning due to dalmonella has an incubation period of about 24 hours, range 17 to 72 hours. This is the time it takes the organism to produce numbers adequate to cause pathological effects.

Organisms producing enterotoxins, such as S. aureus, C. perfringens, and E. coli, have shorter incubation period (4-12 hours). A newly discovered organism capable of causing food poisoning is Bacillus cereus. This spore-bearing organism is associated with rice. The spores are resistant to boiling and germinate in cooling masses of rice. The incubation period is nine to twelve hours.

DRUGS CAUSING DIARRHEA AND THEIR EFFECT ON THE BOWEL

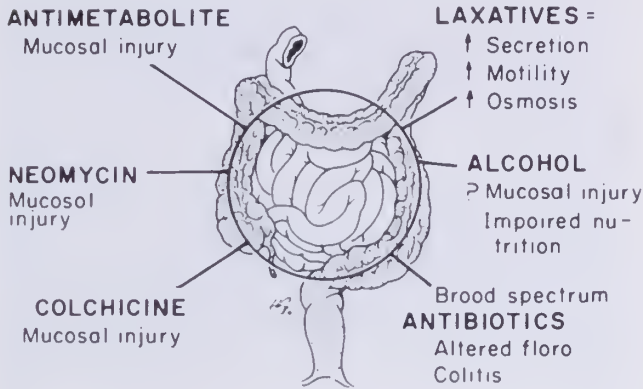


FIGURE 5.

Enterotoxin-induced diarrhea is associated with (1) preformed toxins as elaborated by S. aureus and C. Botulism; (2) enterotoxins elabroated after colonization of the bowel by V. cholera, pathogenic E. coli, S. dysenteriae<sup>13</sup>. Interestingly, toxin producing strains of shigella cannot produce clinical disease whereas invasive strains do. However, toxins produced by invasive strains may potentiate the disease<sup>10</sup>.

"Is the diarrhea nocturnal?" Nocturnal diarrhea is characteristic of diabetic diarrhea, carcinoma, or neurological disease.

"Does it stop with fasting?" If the diarrhea stops with fasting, it usually has an osmotic basis; if it persists, it is usually secretory diarrhea.

"Is the diarrhea due to antibiotics?" (Fig. 5). Often diarrhea is treated with antibiotics and when one antibiotic does not effect a cure, another is substituted. Certain antibiotics, notably Clindamycin, Lincomycin, and Ampicillin can cause diarrhea, pseudomembranous colitis and perianal soreness<sup>14,15</sup>.

"Is previous surgery, such as ileal resection or partial gastrectomy a factor?" V. cholera infection is more readily acquired in the postgastrectomy state<sup>16</sup>. Volunteers with normal gastric acid could ingest ten billion virulent organisms safely, whereas one million was adequate to cause cholera, following neutralization of their gastric acid with sodium bicarbonate<sup>17</sup>.

"Does the diarrhea come and go?" This is common with the irritable bowel syndrome or it may be periodic secondary to indulgence of allergenic foods. Chili commonly causes diarrhea and may produce biochemical lesions in the small bowel indistinguishable from those of cholera. The clue is the burning anal sensation experienced by certain "chili" eaters.

History and Physical Examination

As always the history and physical examination may yield the cause of diarrhea or a clue to it:

The presence of arthritis or pruritus may suggest Whipple's disease, Crohn's disease, or liver disease. Fever suggests a bacterial infection, amebiasis or lymphoma. Marked weight loss suggests a malabsorption syndrome or

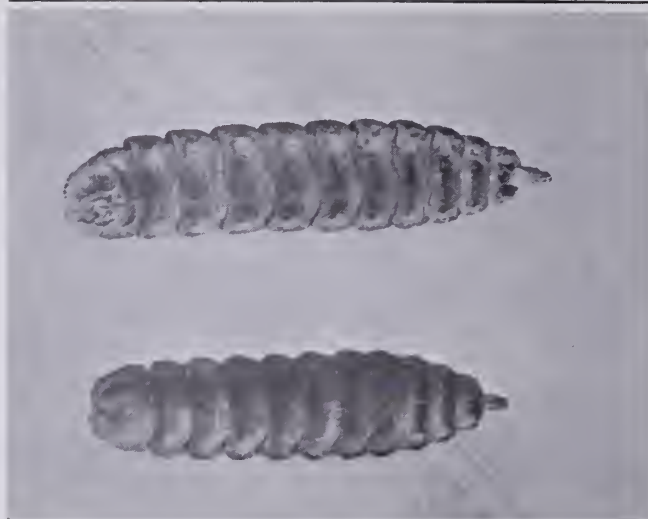


FIGURE 6: Muscoid (fly) maggots found in stool of 28 year old male complaining of intestinal cramps and diarrhea.

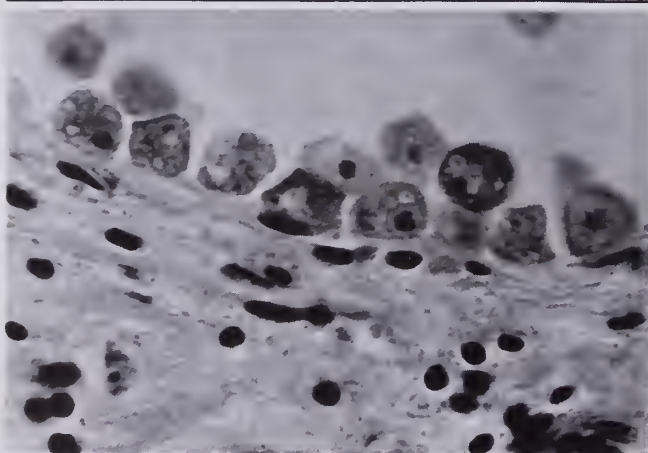


FIGURE 7: *E. histolytica*: Trophozoites march along vessel wall in this rectal biopsy.

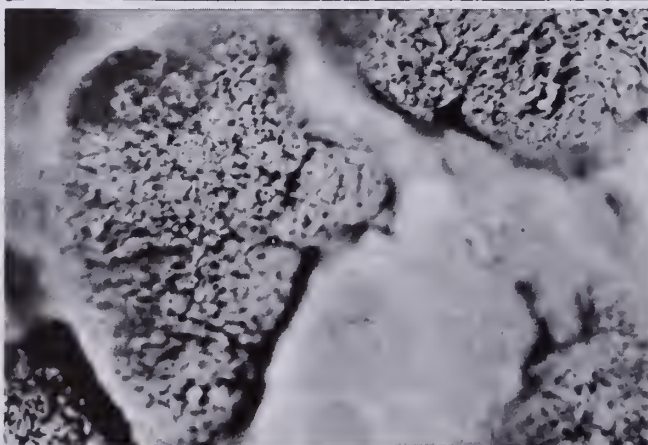


FIGURE 8: Pseudopolyps of granulomatous colitis.

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FIGURE 9: Early lesion of regional enteritis is indicated by arrow in the small bowel study.

carcinoma. Eosinophilia may indicate eosinophilic gastroenteritis or parasitic infestation. A heart murmur, facial flush, and asthmatic symptoms suggests a carcinoid syndrome. Diarrhea and chronic lung disease suggest cystic fibrosis. Diarrhea and recurrent bacterial infection suggest an immune deficiency.

#### Stool Examination

A gross and microscopic look at the stool is imperative in diagnostic analysis of diarrhea. The presence of blood, pus, or inflammation rules out "Psychogenic" diarrhea. The foul odor of fat containing stools is well known. The absence of stool odor may indicate staphylococcal infection or shigellosis. The latter is often characterized by blood tinged mucus; green mucoid stools are usually associated with salmonella or *E. coli* infections. A greasy appearing stool that floats contains gas; if it adheres to the bowl after flushing, excess fat is present. Bulky, porridge-like stools suggest steatorrhea.

Stools should also be examined for pH, color, odor, leucocytes, and blood. A low pH suggests a fermentative diarrhea due to bacteria overgrowth and possibly lactase or sucrase deficiency. Occasionally, one even finds evidence of fly larvae (Fig. 6). Oil droplets may be seen on inspection and can easily be identified microscopically with Sudan I stains. Wright stain will reveal the presence of leucocyte bacteria, and fungi. The presence of polymorphonuclear cells points to bacterial infection. Stool cultures should be obtained if there is a leucocytosis.



## Other Studies:

Duodenal aspiration may be necessary for diagnosis of *G. lamblia*. Proctoscopy is done if the diarrhea fails to subside within four days or immediately if there is bloody diarrhea. Preparatory enemas should be avoided whenever possible because they obscure fine mucosal changes, decrease the chance of isolating parasites, and increase mucus secretion. Rectal swabs for cultures are also helpful in preparing slides for microscopic examination and for streaking culture plates for bacterial isolation.

Rectal biopsy is indicated if ulcerative, amebic or granulomatous colitis or carcinoma is suspected (Fig. 7 and Fig. 8). Bleeding can usually be controlled with local application of 1:1000 epinephrine. If an inflammatory bowel disease is suspected a barium enema and upper gastrointestinal series with small bowel follow-through should be obtained (Fig. 9). Small bowel biopsy may be diagnostic for celiac disease.

## Special Tests:

Special tests may be needed for diagnosis if routine studies fail to pin-point the etiology. These include: serum T3-T4, gastric analysis, and serum B-12 levels, 72-hour fecal fat, D-xylose tolerance test, radiologic studies, retrograde endoscopy for pancreatic or common duct lesions or urinary assay for 5H1AA, intestinal biopsy or therapeutic trials.

## Treatment

The treatment of acute diarrhea is dietary and supportive. Have the patient stop solid food intake and milk for 24 hours and drink lots of fluids, such as coke, orange or tomato juice, for hydration and replacement of lost sodium and potassium.

An additional one or two teaspoons of sugar added to oral fluids helps to facilitate sodium absorption (Table 2). Gatorade contains little potassium. Lytren, a commercially available powdered electrolyte preparation, is an excellent oral electrolyte replacement, but it is expensive.

If the diarrhea persists beyond a reasonable period of

time, steps must be taken to make a diagnosis, to avoid dehydration, and when possible to treat definitively.

Antibiotics are essential to treatment of bacterial diarrhea. For shigellosis, Ampicillin 100 mg/kg/day for five days is usually effective but resistance to this drug is increasing. Antimicrobials are used in salmonellosis when septic dissemination occurs. Avoid diphenxylate hydrochloride (Lomotil) if bacterial diarrhea is suspected. It may prolong the infection and the diarrhea.

For amebiasis, metronidazole (Flagyl), 750 mg t.i.d. for five to seven days is effective. Giardiasis responds readily to quinacrine hydrochloride (Atabrine), 100 mg thrice daily for five days.

Milk intolerance may occur following acute viral gastroenteritis or giardiasis due to injury of the epithelial cell's brush border and loss of lactase. This can lead to a return of diarrhea. Hence, patients should avoid milk for two to four weeks after an acute gastroenteritis or giardia infection. Celiac sprue responds to a gluten-free diet. Folic acid, 5 mg daily, and tetracycline, 250 mg q 6 hours, is usually effective for early tropical sprue. Cholestyramine (Questran) may decrease bile-salt induced diarrhea in patients with ileal resection. Tetracycline may temporarily eliminate diarrhea secondary to bacterial overgrowth in patients with the blind loop syndrome.

Pancreatin (Viokase) 2 gm orally, three to 10 times daily as needed, helps decrease the diarrhea of chronic pancreatitis. Diabetic diarrhea usually improves with control of the diabetes.

Sulfasalazine (Azulfidine) is helpful for ulcerative colitis as are corticosteroids. Surgery may be curative for ulcerative colitis, carcinoma, or the Zollinger-Ellison Syndrome.

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**TABLE 2. HOME-REMEDY:  
ORAL GLUCOSE ELECTROLYTE  
SOLUTION FOR DIARRHEA**

**To 1 quart of water add:**

**1 teaspoon table salt  
1 teaspoon baking soda  
4 teaspoons sugar  
Flavoring**

**This solution contains approximately:**

**140 mEq/L sodium  
55 mEq/L bicarbonate  
85 mEq/L chloride  
60 mM/L sucrose**

# Cushing's Syndrome: Endogenous And Exogenous

Cynthia A. Nettles\*

## ABSTRACT

In 1932, Harvey Cushing established a syndrome characterized by truncal obesity, cutaneous striae, osteoporosis, weakness, hypertension, and diabetes. Fuller Albright (1942) pointed out that these distinctive features could best be attributed to the "sugar hormone" of the adrenal cortex—the hormone that favored gluconeogenesis, protein wasting, and diabetes. With development of a method for measuring formaldehydogenic steroids it became possible to demonstrate that C-21-oxygenated steroids were elevated in the urine of patients with Cushing's syndrome. Subsequent evolution of more specific methods for measuring corticosteroids finally made it possible to demonstrate that the chemical common denominator of all cases of spontaneous Cushing's syndrome was an excess of cortisol. Cortisone and other synthetic glucocorticoids have given rise to iatrogenic Cushing's syndrome.

There are three well established causes of endogenous spontaneous Cushing's syndrome: (1.) autonomous cortisol secretion by an adrenal tumor, (2.) secretion of ACTH by nonpituitary tumors, and (3.) excess secretion of ACTH by the pituitary. Upon establishing the fact that a patient has hypercortisolism, the physician is faced with the challenge of determining the etiology of the state. Laboratory evaluation is essential. Tests of adrenocortical function include: (1.) urinary 17-OH and ketosteroids, (2.) plasma cortisol, (3.) suppression and stimulation tests, and if available (4.) plasma ACTH level.

There are two causes of exogenous Cushing's syndrome; administration of either glucocorticoids or ACTH. Physical findings are indistinguishable from those seen in spontaneous endogenous Cushing's. Accurate laboratory evaluation is essential for early detection, prevention, or treatment of exogenous induced hypercortisolism.

Treatment of Cushing's syndrome is dependent on the etiology of the disease but usually consists of adrenalectomy, pituitary radiation, and/or drug therapy.

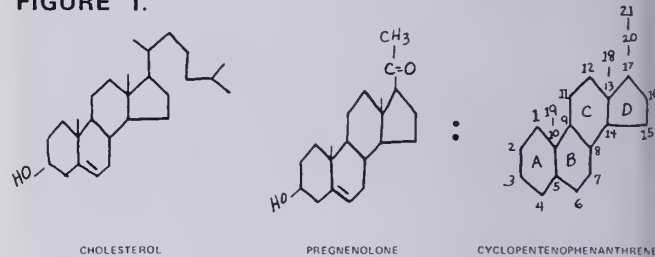
Cushing's syndrome is a clinical and metabolic disorder resulting from a chronic excess of glucocorticoids. The syndrome may result from exogenous administration of synthetic glucocorticoids or endogenous spontaneous hypercortisolism.<sup>1</sup> It is the purpose of this paper to discuss the syndrome with particular interest paid to laboratory findings and diagnosis.

## A Brief Review of Steroid Chemistry

Steroids are hormones which come from both the adrenal cortex and the gonads (ovaries and testes). All the steroids are derived from cholesterol. The cholesterol side chain is cleaved by a 20-22 desmolase enzyme to form

pregnenolone, the precursor of all steroid hormones. Their nucleus is a cyclopentenophenanthrene which is numbered as indicated (figure 1) to tell where certain hydroxyl, keto, methyl, aldehyde, or synthetic groups are attached as well as the position of double bonds in the nucleus. The particular properties of each steroid hormone are determined by the specific attachments.<sup>2</sup>

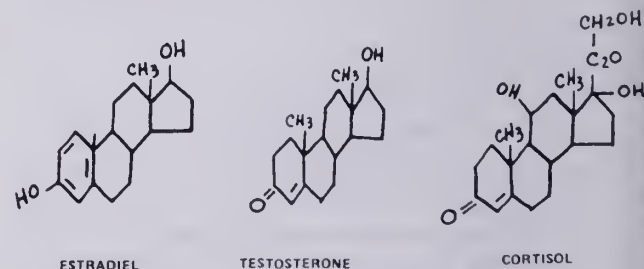
FIGURE 1.



There are three main groups of steroids conveniently divided according to the number of carbon atoms each contains: C-18—estrogens, C-19—androgens, and C-21—glucocorticoids and mineralocorticoids. The C-18 steroids are divided into three types: estradiol, estriol, and estrone. The prototype and most potent is estradiol. These steroids have a "phenolic" ring A which is produced by a specific enzyme system. Estrogens are made primarily by the ovary but small amounts are made by the adrenals and testes. They function primarily in the female reproductive system.<sup>3</sup> The most potent androgen (C-19 steroid) is testosterone which is synthesized by both the adrenal cortex and the gonads. Its primary purpose is the promotion of the development of secondary sex organs and characteristics of the male.<sup>4</sup>

The C-21 steroids are made primarily in the adrenal cortex, two main types being cortisol and aldosterone. These and related steroids are called gluco- and mineralocorticoids respectively, depending on their function. Cortisol has primarily intermediary metabolism particularly as related to glucose regulating properties whereas aldosterone has primarily mineral (sodium and potassium) regulating properties (cortisol does have some mineral regulating properties but aldosterone is approximately 100 times as potent in this regard).<sup>5</sup>

FIGURE 2.



Alteration, addition or absence of keto or hydroxyl groups at any of the key positions of the steroid nucleus (3, 11, 17, and 21) may produce profound changes in biologic properties. Hydroxylation at the 11 position occurs only in

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the adrenal cortex. Naturally occurring steroids must have a hydroxyl group in this position to inhibit the production of ACTH by the pituitary. Double bonding or unsaturation of the rings usually occurs at positions 4 and 5, or 5 and 6; written  $\Delta 4,5$  or  $\Delta 5,6$ . Any additional double bonding will also produce marked change of the steroid biologic properties. Most of the steroids are metabolized to inactive products by a number of steps occurring in the liver. Primarily hydrogen saturation of double bonds and/or the addition of a glucuronide or a sulfate usually at the 3 position render the steroids soluble in the urine.<sup>6</sup>

Further discussion will be limited to the glucocorticoids, laboratory findings, and diagnosis of Cushing's syndrome.

### Biosynthesis of Cortisol

The two adrenal glands are roughly triangular in shape and lie retroperitoneally at the apex of each kidney. The outer portion (the cortex) is divided histologically into three zones: zona glomerulosa, zona fasciculata, and zona reticularis. Cortisol is produced by the zona fasciculata of the adrenal cortex at the rate of about 30 mg/day. There is considerable diurnal variation in the rate of cortisol secretion by the adrenal with the highest levels of plasma cortisol normally being found between 6 and 8 in the morning and reaching the lowest level (less than 5Mg/dl) about midnight.<sup>7</sup>

The synthesis and secretion into the blood of cortisol is regulated by adrenocortin (ACTH) produced by the anterior lobe of the pituitary by a negative feedback system. Cortisol enters the circulation through the adrenal veins where it reaches concentrations of approximately 50 times that in the peripheral circulation. Once it enters the blood, it is distributed between plasma and erythrocytes with much greater concentration in the plasma. In the plasma cortisol is rapidly bound to an alpha globulin (transcortin) and in smaller proportions to albumin. When this binding power is exceeded the excess cortisol occurs freely in the plasma.<sup>8</sup> According to Sherrick, et. al., evidence at present indicates that it is unbound cortisol which is metabolically active.<sup>9</sup> Under normal conditions approximately 10% is unbound but in hypercortisolism the fraction becomes larger.

### Metabolic Effects of Cortisol and Synthetic Analogues

The potent glucocorticoid effect of cortisol and its synthetic analogues produces changes in carbohydrate, protein, and fat metabolism. The main effect on carbohydrate metabolism is an enhancement of gluconeogenesis, the production of carbohydrates from amino acids. This results in increases in blood glucose, liver glycogens, and liver glycogenolysis and decreases in glucose tolerance and peripheral uptake of glucose. The centripetal redistribution of fat, characteristic of Cushing's syndrome, results from an increase in total fat at the expense of protein.

Hypercortisolism may also result in total fat at the expense of protein. Hypercortisolism may also result in hyperlipemia and hypercholesterolemia. Osteoporosis may occur due to the increased protein nitrogen catabolism and decrease in anabolism in the matrix of the bone.<sup>10</sup> Cortisol also decreases the absorption of calcium from the gut where

it appears to antagonize the action of vitamin D. In the G.I. tract gastric acid and pepsin production may be increased with reduction of gastric mucus, leading to peptic ulceration as a side effect.<sup>11</sup>

The glucocorticoid effects of cortisol and synthetic analogues also enhance water diuresis by preventing shift of water into cells. This helps to maintain extracellular fluid volume, enhancing renal blood flow and antagonizing the secretion of or effect of ADH on the renal tubules.<sup>12</sup> In the hematopoietic system cortisol decreases the lymphocyte count and increases clotting tendency. Large doses of cortisol cause enough lymphocyte depression to decrease immune response and it may interfere with antigen-antibody reactions. This makes the patient with excess cortisol more susceptible to infection but also has been used to advantage in treating the rejection phenomenon associated with organ transplants.<sup>13</sup>

In the cardiovascular system cortisol sensitizes the arterioles to the action of adrenalin, thereby enhancing blood pressure. Glucocorticoids decrease all components of the inflammatory response and reduce fibrous tissue formation. Thus they have been used to advantage in treatment of a variety of inflammatory diseases, particularly the autoimmune diseases.<sup>14</sup> In the brain it causes increased slow wave activity on the electroencephalogram and lowers the threshold of electrical excitation, sometimes leading to convulsions. Both deficiency and excess of corticoids may cause psychiatric disturbances.<sup>15</sup>

### Cushing's Syndrome: Endogenous

There are three well established causes of spontaneous endogenous Cushing's syndrome:

(1) Autonomous cortisol secretion by adrenocortical tumors occurs in approximately one of every ten thousand hospital admissions. The tumors may be carcinomas, solitary or multiple adenomas.<sup>16</sup>

(2) Nonpituitary neoplasm ACTH secretion stimulates the adrenal to secrete excessive amounts of cortisol. This phenomenon is generally referred to as the ectopic ACTH syndrome. Its incidence of occurrence is hard to estimate because it is often overlooked due to the severity of the associated disorder. The major association has been with "oat-cell" carcinoma of the lung, malignant thymoma, pancreatic carcinoma, and bronchial adenoma. Hypokalemic alkalosis is often present in such cases whereas many of the distinct physical findings associated with Cushing's syndrome may be absent.<sup>17</sup>

(3) A disorder of pituitary function so that excessive quantities of ACTH are secreted stimulates the adrenals to produce excess cortisol—often referred to as Cushing's disease. This type disorder is the most frequently occurring with incidence of occurrence reported in one of every four thousand hospital admissions.<sup>18</sup>

It is apparent that regardless of etiology, all cases of Cushing's syndrome are due to increased production of cortisol by the adrenal glands. Attention will be paid now to tests of adrenocortical function and differential diagnosis.

## Tests of Adrenocortical Function

There are theoretically three types of measurement which can be used to indicate adrenal activity: (1.) a 24-hour urine assay for 17-hydroxyand 17-ketosteroids, (2.) measure of prevailing plasma cortisol, and (3.) suppression and stimulation tests to tell the actual amount of cortisol produced by a gland in a given time.

The urinary 17-OH steroids are measured predominately by the Porter-Silber reaction. Phenylhydrazine forms a color reaction with those steroids having a dehydroxy-ketone configuration at the 17 and 21 positions. The urinary 17 ketosteroids are measured predominately by the Zimmerman reaction. These steroids form a color when reacted with a strong sulfuric acid. The 17-OH steroids may also be measured as 17-ketogenic steroids in which first the 20-21 side chain is removed, a ketone is formed at position 17 and then the Zimmerman reaction is performed. The basal 24-hour excretions of 17-OH and 17-keto steroids must be obtained from a full 24-hour sample to insure accuracy.<sup>19</sup>

Plasma cortisol is preferably measured by the fluorescent or the RIA technique. The principle of the fluorescence determination is to extract the cortisol with a suitable organic solvent, such as methylene chloride. Fluorescence is obtained by the addition of a mixture of alcohol and concentrated sulfuric acid. In the RIA technique an aliquot of denatured sample is incubated at room temperature with labeled <sup>3</sup>H-cortisol and rabbit anti-cortisol serum. The bound fraction is measured in a liquid scintillation counter.<sup>20</sup> Due to the diurnal variation of cortisol the time of day that the specimen is collected is extremely crucial in order to properly interpret the results. Elevated transcortin levels and any interfering substance in plasma (particularly spironolactone in the fluoremetric method) may give misleading results.

Suppression and stimulation tests include the: (a.) Short ACTH Test, (b.) Forty-Eight Hour ACTH Test, (c.) Overnight Dexamethasone Suppression Test, (d.) Standard Low and High Dose Dexamethasone Suppression Test, (e.) Overnight Metopirone Test, and (f.) Standard Metopirone Test. These tests are used when the basal levels of steroids or their excretion products are inadequate to determine the functional capacity of the gland. When hypoactivity is suspected ACTH is used for stimulation. Conversely when hyperactivity (as found in Cushing's syndrome) is suspected one uses a potent glucocorticoid for suppression. Synthetic beta-1,24-corticotropin is used in the Short and Forty-Eight Hour ACTH tests to determine adrenohypofunction.

**DEXAMETHASONE**, a synthetic derivative of cortisone is useful in distinguishing adrenocortical hyperfunction from adrenal tumors. Adrenal tumors (particularly carcinoma) are usually unresponsive to the suppressive effects of exogenous adrenocorticosteroids on ACTH secretion. Dexamethasone is used because its glucocorticoid potency is such that only small amounts need to be given and thus don't add significantly to the cortisol metabolites normally found in the urine.

The dexamethasone Suppression tests should only be done after determinations of morning plasma cortisol and baseline 24-hour urine Hydroxy- and ketosteroids with findings normal or elevated.<sup>21</sup> One mg. of dexamethasone

administered orally at 12:00 midnight should suppress the plasma cortisol at 8:00 the next morning to less than 10 mg/dl. This is a good screening procedure.

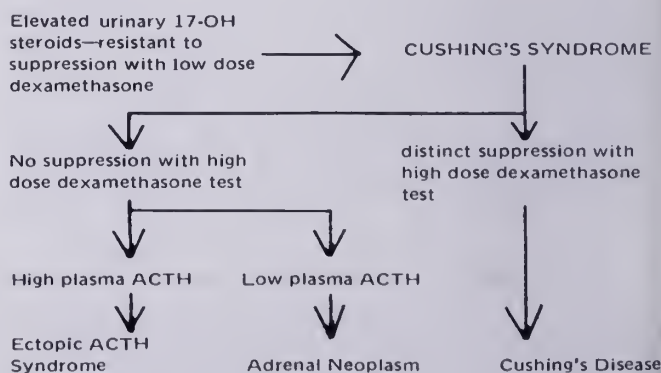
If further testing is deemed necessary the Low/High Dose test is administered. Dexamethasone, 0.5 mg/6 hr. is administered orally for 48 hours. During the second 24 hours the urinary 17-OH and ketosteroids should suppress to at least half the original 24-hour excretion value and preferably to less than 3 mg/24 hr. This is followed by the high dose test in which dexamethasone is administered orally at a dose of 2 mg/6 hr. for 48 hrs. The urinary steroids are determined during the second 24 hours. The level should suppress to roughly half or less the baseline value.

It is postulated that in most cases of adrenal hyperplasia the hypothalamic-pituitary "set" for ACTH release is elevated and therefore higher levels of circulating glucocorticoids are required for suppression of this axis. If the levels do not suppress a tumor is suspected. (One rare ectopic ACTH producing tumor, the bronchial adenoma is sometimes suppressible.)<sup>22</sup>

**THE METOPIRONE** test lowers circulating cortisol levels thereby providing a stimulus for the release of ACTH. Metopirone is administered orally or intravenously which then blocks the 11 hydroxylation of cortisol (the last step in cortisol synthesis) producing 11-deoxycortisol which will not inhibit pituitary secretion of ACTH. The test should only be used when it has been demonstrated that the adrenal has the capacity to respond to ACTH otherwise an adrenal crisis may be produced. This test is primarily used in testing the ability of the pituitary to release ACTH.<sup>23</sup>

## Differential Diagnosis

Having established the fact that a patient has hypercortisolism, differential diagnosis is necessary because optimal treatment for each of these disorders is different. Another test, in addition to those previously discussed, proving helpful in differential diagnosis is a measure of the plasma ACTH level. According to Williams, this test plus an evaluation of the steroid secretory response to the large-dose dexamethasone test and a clinical appraisal of the patient provide sufficient information for differential diagnosis.<sup>24</sup> A flow diagram has been prepared to correlate test results with his evaluation.





However, because a plasma ACTH level is not easily obtained, particularly in this area, less complex clinical procedures can be used to differentiate ectopic ACTH syndrome and adrenal neoplasms.<sup>25</sup> *The Textbook of Medicine* suggests four additional helps to differential diagnosis:

“(1.) Patients with Cushing’s disease almost invariably respond to metopirone with increased secretion of ACTH and total 17-OHCS (the increase in 17-OHCS is attributable to a large increase in 11-deoxycortisol). Patients with Cushing’s syndrome caused by adrenal tumors do not respond to metopirone with increased 17-OHCS production. Patients with the ectopic ACTH syndrome vary in their responses; some show increases in 17-OHCS and others do not.

(2.) In patients with hypercortisolism, a grossly disproportionate elevation in urinary 17-ketosteroids is highly suggestive of adrenal carcinoma. The same may be said if more than 30% of the urinary 17-OHCS are made up of 11-deoxy-cortisol and its tetrahydrometabolite.

(3.) Virtually all patients with Cushing’s disease respond to exogenous ACTH with large increases in cortisol secretion; this is also true of patients with the ectopic ACTH syndrome unless their basal levels of cortisol are very high. Patients with Cushing’s syndrome resulting from adrenal carcinoma almost never respond to brief infusions of ACTH. Patients with cortisol-secreting adenomas vary in their responses; about half of them respond and half do not.

(4.) Adrenal carcinomas are usually so inefficient in producing steroids that they do not cause Cushing’s syndrome until they have become large enough to be readily demonstrated by intravenous urography of arteriography; some are so large that they can be palpated through the anterior abdominal wall by the time the patient exhibits Cushing’s syndrome.”<sup>26</sup>

### Cushing’s Syndrome: Exogenous

Iatrogenic Cushing’s syndrome, induced by the administration of either glucocorticoids or ACTH, is indistinguishable by physical findings from the endogenous forms of adrenocortical hyperfunction. Patients with a pure exogenous form of Cushing’s syndrome due to prolonged suppression of their hypothalamic-pituitary axis by administered steroid will demonstrate low base-line steroid excretions, predominantly in the daytime, a finding in distinct contrast to that in patients with endogenous Cushing’s. Patients receiving long-term ACTH therapy, in addition to the features of Cushing’s syndrome, may also have melanoderma. The production of iatrogenic Cushing’s syndrome is related both to the total steroid dose and to the duration of therapy.<sup>27</sup>

### Therapy of Cushing’s Syndrome

Therapy of Cushing’s syndrome is dependent on the etiology. The most satisfactory therapy is the removal of an adrenal adenoma by unilateral adrenalectomy leaving one adrenal intact. Thus, the patient is cured and not dependent

on steroid replacement therapy. Patients with the usual form of bilateral adrenal hyperplasia are most effectively treated by bilateral total adrenalectomy. (However, many such patients are poor operative risks and other less effective but more benign forms of therapy may be tried.) External pituitary radiation (4000-5000 rads) may alleviate or cure the disorder in about 20% of patients. Usually, however the response is slow and, since less than one-fifth respond, unpredictable.<sup>28</sup>

A recent approach is drug therapy with the adrenolytic agent *o,p*’-dichlorodiphenyl-dichloroethane (*o,p*’-DDD), which is somewhat toxic and related chemically to dichlorodiphenyltrichloroethane (DDT). Low dose (2-3 gm/day) therapy with this agent has produced remissions of adrenal hyperplasia within 6 months to 2 years. Since the drug has a marked effect on steroidogenesis it is usually advisable to give steroid replacement therapy as the Cushing’s syndrome is coming under control to avoid an adrenal crisis. This drug was originally and is still the most effective means of therapy of inoperable adrenocortical carcinoma, usually in larger doses (8-12 gm/day).

Another drug, aminoglutethimide (used for a while as an anticonvulsant—related chemically to the sedative Doriden) was found to produce goiters and block steroid synthesis and has also been used in Cushing’s syndrome but in general has been relatively ineffective and abandoned. Metopirone in combination with *o,p*’-DDD has been used in somewhat desperate situations in which a rapid reduction in circulating cortisol levels is desired, particularly as in the ectopic ACTH syndrome.<sup>29</sup>

### Conclusion

This discussion illustrates the necessity of proper laboratory evaluation in assessing the clinical status of a patient suspected of having Cushing’s syndrome. An erroneous diagnosis could be made through laboratory error. It is hoped that all clinical laboratory personnel reading the discussion will gain a better understanding of the “why” behind their test tube analysis.

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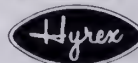
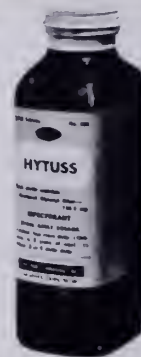
An identifiable white, scored tablet which significantly stimulates the secretion of respiratory tract fluid.

# HYTUSS TABS

(GLYCERYL GUAIACOLATE 100mg)

**Composition:** Each sugar-free compressed tablet contains glyceryl guaiacolate 100mg.  
**Action and Use:** This preparation utilizes the effective expectorant action of glyceryl guaiacolate which significantly stimulates the secretion of respiratory tract fluid. The increased flow of less viscid fluid favors expectoration and has a demulcent effect on the tracheobronchial mucosa. The primary usefulness of Hytuss Tabs is to promote the change from a dry, unproductive cough to a productive cough. Hytuss is therefore useful in treating coughs due to the common cold, bronchitis, laryngitis, tracheitis, pharyngitis, influenza and the measles. The expectorant action of Hytuss may also provide symptomatic relief in some chronic respiratory disorders when the patient experiences spasms of dry nonproductive coughing. **Precautions:** Extremely large amounts may cause nausea and vomiting. **Administration and Dosage:** Adults—1 tablet four times daily. Children—6 to 12 years of age; ½ tablet 3 or 4 times daily. **HOW SUPPLIED:** White, scored, sugar-free, tablet in bottles of 100 - 1,000 - 5,000. **Product Identification Mark:** Hy. Literature Available: On request.

Available through all drug wholesalers.



HYREX COMPANY  
832 South Cooper  
Memphis, Tenn. 38104



# DYAZIDE<sup>®</sup>

Trademark

Each capsule contains 50 mg. of Dyrenium<sup>®</sup> (triamterene, SK&F Co.) and 25 mg. of hydrochlorothiazide.

## MAKES SENSE FOR LONG-TERM CONTROL OF HYPERTENSION\*



Before prescribing, see complete prescribing information in SK&F literature or PDR. The following is a brief summary.

**\* Warning**

This fixed combination drug is not indicated for initial therapy of edema or hypertension. Edema or hypertension requires therapy titrated to the individual patient. If the fixed combination represents the dosage so determined, its use may be more convenient in patient management. The treatment of hypertension and edema is not static, but must be reevaluated as conditions in each patient warrant.

**\* Indications:** *Edema:* That associated with congestive heart failure, cirrhosis of the liver, the nephrotic syndrome; steroid-induced and idiopathic edema; edema resistant to other diuretic therapy. *Mild to moderate hypertension:* Usefulness of the triamterene component is limited to its potassium-sparing effect.

**Contraindications:** Pre-existing elevated serum potassium. Hypersensitivity to either component. Continued use in progressive renal or hepatic dysfunction or developing hyperkalemia.

**Warnings:** Do not use dietary potassium supplements or potassium salts unless hypokalemia develops or dietary potassium intake is markedly impaired. Enteric-coated potassium salts may cause small bowel stenosis with or without ulceration. Hyperkalemia ( $>5.4$  mEq/L) has been

reported in 4% of patients under 60 years, in 12% of patients over 60 years, and in less than 8% of patients overall. Rarely, cases have been associated with cardiac irregularities. Accordingly, check serum potassium during therapy, particularly in patients with suspected or confirmed renal insufficiency (e.g., elderly or diabetics). If hyperkalemia develops, substitute a thiazide alone. If spironolactone is used concomitantly with 'Dyazide', check serum potassium frequently—both can cause potassium retention and sometimes hyperkalemia. Two deaths have been reported in patients on such combined therapy (in one, recommended dosage was exceeded; in the other, serum electrolytes were not properly monitored). Observe patients on 'Dyazide' regularly for possible blood dyscrasias, liver damage or other idiosyncratic reactions. Blood dyscrasias have been reported in patients receiving Dyrenium (triamterene, SK&F). Rarely, leukopenia, thrombocytopenia, agranulocytosis, and aplastic anemia have been reported with the thiazides. Watch for signs of impending coma in acutely ill cirrhotics. Thiazides are reported to cross the placental barrier and appear in breast milk. This may result in fetal or neonatal hyperbilirubinemia, thrombocytopenia, altered carbohydrate metabolism and possibly other adverse reactions that have occurred in the adult. When used during pregnancy or in women who might bear children, weigh potential benefits against possible hazards to fetus.

**Precautions:** Do periodic serum electrolyte and

BUN determinations. Do periodic hematologic studies in cirrhotics with splenomegaly. Anti-hypertensive effects may be enhanced in post-sympathectomy patients. The following may occur: hyperuricemia and gout, reversible nitrogen retention, decreasing alkali reserve with possible metabolic acidosis, hyperglycemia and glycosuria (diabetic insulin requirements may be altered), digitalis intoxication (in hypokalemia). Use cautiously in surgical patients. Concomitant use with antihypertensive agents may result in an additive hypotensive effect. 'Dyazide' interferes with fluorescent measurement of quinidine.

**Adverse Reactions:** Muscle cramps, weakness, dizziness, headache, dry mouth; anaphylaxis; rash, urticaria, photosensitivity, purpura, other dermatological conditions; nausea and vomiting (may indicate electrolyte imbalance), diarrhea, constipation, other gastrointestinal disturbances. Necrotizing vasculitis, paresthesias, icterus, pancreatitis, xanthopsia and, rarely, allergic pneumonitis have occurred with thiazides alone.

**Supplied:** Bottles of 100 capsules; in Single Unit Packages of 100 (intended for institutional use only).

**SK&F CO.,** Carolina, P.R. 00630  
Subsidiary of SmithKline Corporation

## TRIAMTERENE CONSERVES POTASSIUM WHILE HYDROCHLOROTHIAZIDE LOWERS BLOOD PRESSURE





When Big Ben looks "a little off"...

# Antivert®/25 (meclizine HCl) 25 mg. Tablets for vertigo\*

■ **Most Widely Prescribed**—Antivert is the most widely prescribed agent for the management of vertigo\* associated with diseases affecting the vestibular system such as Menière's disease, labyrinthitis, and vestibular neuronitis.

■ **Relief of Nausea and Vomiting**—Antivert/25 can relieve the nausea and vomiting often associated with vertigo\*.

■ **Dosage for Vertigo\***—The usual adult dosage for Antivert/25 is one tablet t.i.d.

#### BRIEF SUMMARY OF PRESCRIBING INFORMATION

**\*INDICATIONS.** Based on a review of this drug by the National Academy of Sciences—National Research Council and/or other information, FDA has classified the indications as follows:

**Effective:** Management of nausea and vomiting and dizziness associated with motion sickness.

**Possibly Effective:** Management of vertigo associated with diseases affecting the vestibular system.

Final classification of the less than effective indications requires further investigation.

**CONTRAINDICATIONS.** Administration of Antivert (meclizine HCl) during pregnancy or to women who may become pregnant is contraindicated in view of the teratogenic effect of the drug in rats.

The administration of meclizine to pregnant rats during the 12-15 day of gestation has produced cleft palate in the offspring. Limited studies using doses of over 100 mg./kg./day in rabbits and 10 mg./kg./day in pigs and monkeys did not show cleft palate. Congeners of meclizine have caused cleft palate in species other than the rat.

Meclizine HCl is contraindicated in individuals who have shown a previous hypersensitivity to it.

**WARNINGS.** Since drowsiness may, on occasion, occur with use of this drug, patients should be warned of this possibility and cautioned against driving a car or operating dangerous machinery.

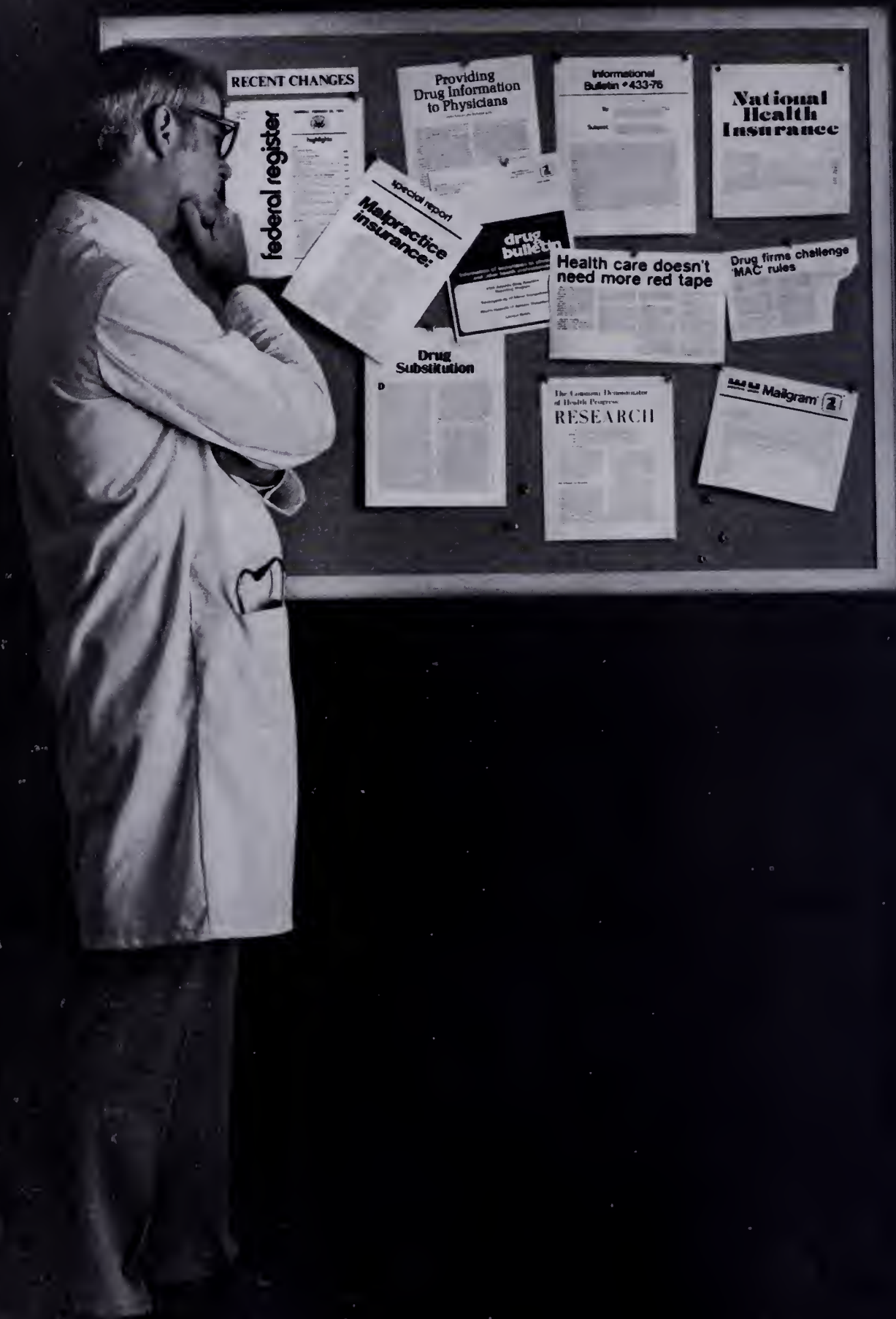
**Usage in Children:** Clinical studies establishing safety and effectiveness in children have not been done; therefore, usage is not recommended in the pediatric age group.

**Usage in Pregnancy:** See "Contraindications."

**ADVERSE REACTIONS.** Drowsiness, dry mouth and, on rare occasions, blurred vision have been reported.

More detailed professional information available on request.

**ROERIG**   
A division of Pfizer Pharmaceuticals  
New York, New York 10017



**RECENT CHANGES**

**federal register**

**Providing  
Drug Information  
to Physicians**

**Informational  
Bulletin #433-76**

**National  
Health  
Insurance**

**special report**  
**Malpractice  
insurance:**

**drug  
bulletin**

**Health care doesn't  
need more red tape**

**Drug firms challenge  
MAC rules**

**Drug  
Substitution**

**The Common Denominator  
of Health Progress  
RESEARCH**

**Mailgram 2**



# THERE ARE A LOT OF PEOPLE GETTING BETWEEN YOU AND YOUR PATIENT.

Medicine today is in the spotlight, subjected to all kinds of scrutiny. Your control over patient therapy is being monitored, judged and occasionally abrogated, sometimes by unknown third parties.

The worry is that in the wake of this focus, the relationship between you and your patient will be weakened, without offsetting benefits. Consider three examples:

**Drug substitution** In most states, pharmacy laws, regulations or professional custom stipulate that your non-generic prescriptions be filled with the precise products you prescribe. But in the last five years, a dozen or more State laws have been changed, permitting the pharmacist in most cases to select a product of the same generic drug to fill any prescription.

Ironically, this dilution of physician control has taken place against a background of growing evidence that purportedly equivalent drug products may be inequivalent, since neither present drug standards nor their enforcement are optimal. In fact, the FDA itself says it has not enforced the same standards for hundreds of "follow-on" products that it had applied to the original NDA approvals. Thus physician control over patient therapy is being eroded with a risk that patients may be exposed to drugs of uncertain quality.

The major advertised claim for substitution is reduced prescription prices for consumers. Yet no documentation of any significant savings has been produced.

**MAC** Maximum Allowable Cost, MAC for short, is a Federal regulation designed to cut the Government's drug bill by setting price ceilings for drugs dispensed to Medicare and Medicaid patients. Unless the prescriber certifies on the prescription that a particular product is medically necessary, the Government intends to pay only for the cost of the lowest-priced, purportedly-equivalent,

generally-available product. The effect of the program may be that elderly and indigent patients will be restricted to products which someone in Washington believes are priced right. Practicing doctors will have little to say about administration of the program, since Government will have absolute authority to make its choices stick.

**The drug lag** The future of drug and device research depends upon a scientific and regulatory environment that encourages therapeutic innovations. The American pharmaceutical industry annually is spending more than \$1 billion of its own funds and evaluating more than 1,200 investigational compounds in clinical research. Disease targets include cancer, atherosclerosis, viruses and central nervous system disorders, among others. But there is a major barrier to the flow of new drugs to your patients: The cost of the research is more than ten times what it was, per product, in 1962; and whereas governmental clearance of new drug applications took six months then, it commonly consumes two years now.

The FDA needs adequate time, of course, to consider data. But it is equally clear that the present approval process contributes to needless delay of needed therapy. That's why the increased efficiency of the drug approval process is vital to all our futures.

If these issues concern you, we suggest that you make your voice heard—among your colleagues and your representatives in State legislatures and in Washington.

It could make a difference in your practice tomorrow.



Pharmaceutical Manufacturers Association  
1155 Fifteenth Street, N.W., Washington, D.C. 20005

# The Continuing Ferment In Medical Education

FOR AS LONG as I can remember, medical education has been in a period of ferment and change, and with change, there are always honest differences of opinion. It is only in exceptional circumstances when men cannot be reasonable and respect each other, even though they differ in opinion, that open conflict arises, such as the occasional and rather violent town and gown conflicts that have occurred in the past in various places. However, honest differences of opinion also have occurred and are occurring within the ivy-covered walls of academia.

The ferment, the changes, the experiments, and the arguments which have characterized medical education since 1945 are signs of vigorous growth, an attempt by the profession (including the academicians) to respond more adequately to the demands and needs of society as expressed in terms of financial support and the purposes for which this support was given.

From the end of World War II until about the mid-1960's, we saw the pendulum swing vigorously with increasing sums for research resulting in tremendous advances in medical science and technology. These advances have been so significant that no modern physician wishes to turn back the clock to the medicine of 1945.

AS EVERYONE KNOWS, these changes have been accompanied by an increase of full-time faculties in medical schools and a corresponding decrease in the role of the practicing physician as a clinical teacher. It has been characterized by specialization and subspecialization. Within the academic circles and their accrediting bodies, the conviction has developed that modern medical education requires an academic environment where research flourishes, not only to advance medical science but to help inculcate a critical, questioning mind among the students.

There has developed also the conviction that the specialists and subspecialists are essential because no one can teach better the intricacies of cardiovascular disease than the cardiologists, cardiac surgeons, biochemists, pharmacologists, and others who are deeply emerged in the study of cardiac problems.

The belief has arisen also that residency training in the various medical specialties is essential for undergraduate medical education because the resident teaches the student more than the professor and is always available, whereas the professor is not readily accessible to most students.

No one wants to retard the national research effort or to undercut the great research centers such as the one that has developed at UAB, because from these centers will come the advances in medical science and technology for the future. However, the validity of the assumptions given above concerning medical education for the undergraduate student is being challenged increasingly especially since 1965. The challenge is not directed toward the importance

and value of research but whether the medical education system, as such, has gotten out of balance and whether the educational system is doing all that it should to prepare physicians to meet the public needs and demands for health care at a reasonable cost.

ARE THE SCHOOLS preparing the right kind of physicians to meet the needs of society? Is there a valid role for the expert clinician as a teacher of medical students, even though he may not be involved in research? Can medical education of good quality occur at locations other than the major medical centers? Specifically, in the state of Alabama can it occur in Tuscaloosa, Huntsville, and some of the satellite centers with which these programs are working?

Perhaps the most telling criticism of the present state of medical education comes not from outside the academic ivory towers but from the inside. The most articulate of these critics is Dr. Paul Beeson, who was Chairman of the Department of Medicine at Emory University, then at the Yale University School of Medicine for 15 years. By 1965 he wearied of the heavy responsibilities of administering a large research-oriented Department of Medicine and accepted the position as Nuffield Professor of Clinical Medicine at the University of Oxford, England.

Recently, he returned to an academic post in the United States at the University of Washington. While in Great Britain, he gained a new perspective of medical education, not that he thinks the British health system is applicable to the United States. In his Cartwright lecture, given before the Columbia University College of Physicians and Surgeons in New York City on November 20, 1974, he made some interesting comments. The whole address is worth reading, but I can quote only a few paragraphs within the space permitted.

Dr. Beeson says, "As I look back on my two decades as Professor of Medicine during the period under review, I recall very little discussion, formal or informal, regarding the appropriateness of our training programs to the needs of the nation." After some discussion about the large amount of time and effort devoted to recruiting housestaff, fostering research and soliciting grants, he continues, "My tunnel vision was, in fact, pretty much directed toward the annual clinical research meetings in Atlantic City. What these goals and their pursuit tended to produce was a department with strong research interests, with facilities for sophisticated diagnostic and therapeutic maneuvers and with an emphasis on narrow specialization."

NOW RECOGNIZING the need for more primary care physicians, Dr. Beeson writes, "We must find ways to control specialist training programs so that we can look forward to a profession composed of the proper proportion of different kinds of practitioners. I don't think it is acceptable simply to point out that people trained in internal medicine and pediatrics are, in fact, providing a

CONTINUED ON PAGE 53

By William R. Willard, M.D., Dean  
College of Community Health Sciences  
The University of Alabama



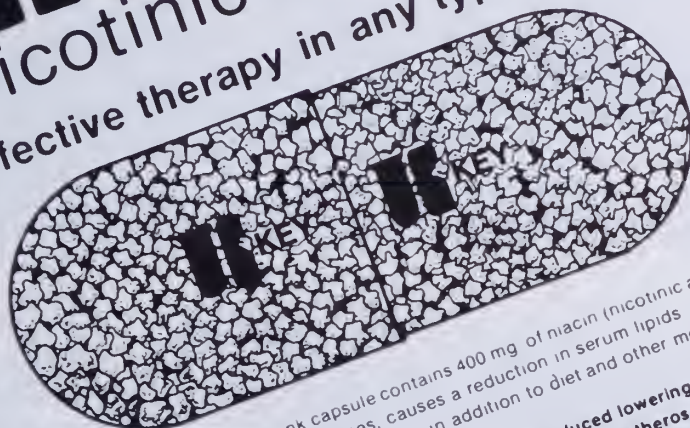
The Original  
Slow Release  
Form of Nicotinic Acid

# nico-Span<sup>®</sup>

400 mg. capsules

(nicotinic acid)

Effective therapy in any type of drug responsive hyperlipidemia.



**DESCRIPTION:** Each pink capsule contains 400 mg. of niacin (nicotinic acid) in a special pelletized formulation for prolonged release.

**ACTIONS:** Niacin, in large doses, causes a reduction in serum lipids. The exact mechanism of action is unknown.

**INDICATIONS:** As adjunctive therapy in addition to diet and other measures in the treatment of hypercholesterolemia and hyperbetalipoproteinemia.

**Notice:** It has not been established whether drug-induced lowering of serum cholesterol or other lipid levels has a detrimental, a beneficial or no effect on the morbidity due to atherosclerosis or coronary heart disease. Several years will be required before current investigations can yield an answer to this question.

**CONTRAINDICATIONS:** Niacin is contraindicated in patients with hepatic dysfunction or in patients with active acute peptic ulcer.

**WARNINGS:** The use during pregnancy and lactation or in women of childbearing age requires careful weighing of potential benefits versus possible hazards to the mother and child. There are insufficient studies done for usage in children.

**PRECAUTIONS:** Patients with diabetes, gall bladder disease, past history of jaundice, liver disease, or peptic ulcer should be observed closely. At initial stage of therapy, liver function and blood glucose should be monitored at frequent intervals. Adjustment of diet and/or hypoglycemic therapy may be necessary. Patients undergoing antihypertensive therapy may experience an added vasodilating effect with resulting postural hypotension. Use with caution in patients predisposed to gout.

**ADVERSE REACTIONS:** Severe flushing, decreased glucose tolerance, activation of peptic ulcer, abnormal liver function tests, jaundice, gastrointestinal disorders, dry skin, pruritus, hyperuricemia, toxic amblyopia, hypotension, transient headache.

**DOSAGE AND ADMINISTRATION:** The dose and frequency for the administration of NICO-SPAN should be adjusted to the response of the patient. Slow build-up of dosage in gradual increments is recommended to observe efficacy and/or adverse effects. One or two capsules three times a day is the usual dosage. The maximum daily dosage is 6 grams.

Please arrange to provide starter samples and/or complimentary "Starter" prescription booklets for:

**nico-Span<sup>®</sup>** (nicotinic acid, 400 mg.)

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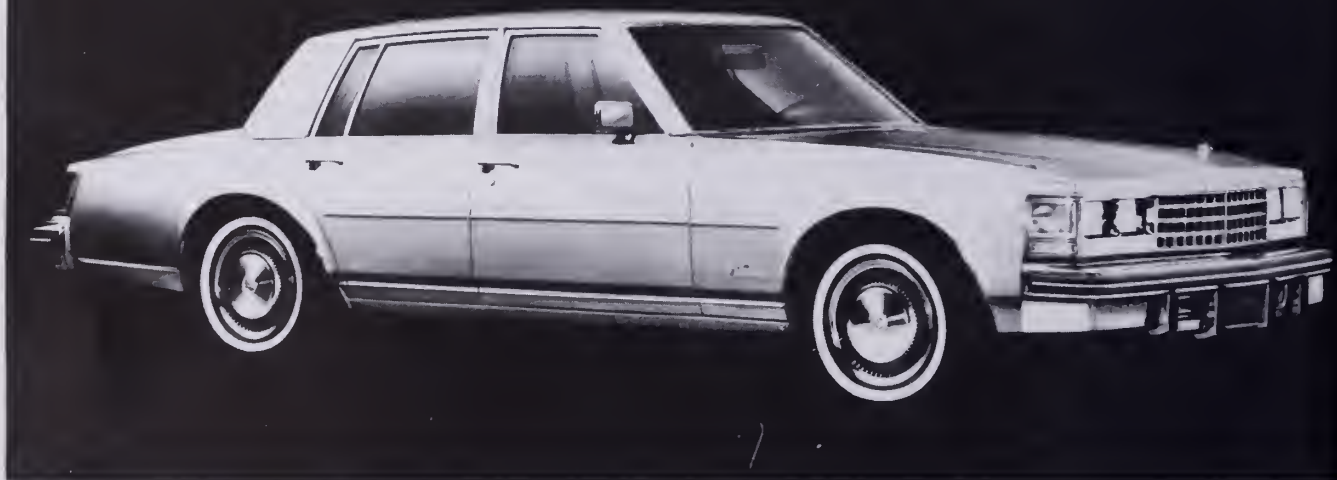
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Samples ☐ "Starter" Rx's ☐



**KEY  
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# Test drive Seville. The International-size Cadillac that compares with anything Europe has to offer.



It's 25 inches shorter and several hundred pounds lighter than full-size U.S. luxury cars. It's got a 5.7 liter electronic fuel injected engine as standard equipment. Front disc brakes are combined with a new Power Brake Booster. And it showed a fuel-thrifty 21 mpg highway and 15 mpg city in EPA testing.


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## Roster Supplement

### new members

#### CALHOUN COUNTY

GROW, John Lockwood, b 20, mc John Hopkins 50, recip. Maryland 50, 1120 Christine Avenue, Anniston 36201. S.

#### CHAMBERS COUNTY

SAGUIER, Emiliano Victor, b 41, mc Fac Med. Univ. Nat'l. Paraguay 65, recip. N.Y. 73, 14 Medical Park, Langdale 36864. U.

#### ETOWAH COUNTY

DENNIS, Maurice Ernest, Jr., b 47, mc Ala. 73, recip. NBME 74, 948 Forrest Ave., Gadsden 35901. Pd.

SKELTON, Kenneth Everett, b 46, mc Ala. 72, recip. NBME 73, P. O. Box 1609, Gadsden 35901.

#### HOUSTON COUNTY

ADAMS, William Curtis, b 24, mc Temple 47, recip. New Jersey 48, P. O. Box 6657, Dothan 36301. EM-P.

HEAD, Robert Allan, b 46, mc Miss. 73, recip. Miss. 73, Southeast Alabama General Hospital, P. O. Box 6987, Dothan 36301. S.

HOUSTON, Joseph Samuel, b 25, mc Ga. 59, recip. Ga. 59, 100 South Edgewood Dr., Dothan 36301. Anes.

RUSSELL, John Burton, b 48, mc Miss. 74, recip. Miss. 74, P. O. Box 6657, Dothan 36301. EM.

#### JEFFERSON COUNTY

BRANNON, Loyd Clarence, b 28, mc Va. 57, recip. Va. 57, 310 Woodward Building, Birmingham 35203. EM.

CROW, Charles B., III, b 4, mc Ala. 74, recip. NBME 76, 109 Montevallo Lane, Birmingham 35213. I.

DASHER, Charles Alexander, b 46, mc Ga. 72, recip. NBME 73, UAB Station, Birmingham 35294. I.

DOUGHTON, Ralph Michael, b 47, mc Ala. 72, recip. NBME 73, 1717 11th Avenue, South, Birmingham 35205. R.

EILAND, Cecil Morgan, b 45, mc Ala. 72, recip. NBME, 1717 11th Avenue, South, Birmingham 35205. DR.

FOLMAR, Pink Lowe, Jr., b 45, mc Ala. 72, recip. NBME 73, 801 Princeton Ave., SW, Birmingham 35211. I.

GRISSETT, Bryan Irving, III, b 49, mc Ala. 74, recip. NBME 76, 619 Idlewild Circle, Apt. 25, Birmingham 35205. I.

HAWLEY, William Kirkland, b 48, mc Ala. 74, recip. NBME 76, 1615 25th Street, North, Birmingham 35234.

HILL, Gregory Griffin, b 50, mc Ala. 75, recip. NBME 76, 1615 North 25th Street, Birmingham 35234.

LUM, Rita Kaye, b 46, mc Miss. 72, recip. Miss. 72, UAB Station, Birmingham 35294. P.

NEWELL, Ronald Bruce, b 46, mc Miss. 72, recip. Miss. 72, UAB Station, Birmingham 35294. OrS.

PERRY, Henry Alan, b 42, mc Ga. 69, recip. Ga. 70, 7901 1st Ave., S., Suite 605, Birmingham 35206. S.

PFISTER, Roswell Robert, b 38, mc Michigan 62, recip. NBME 64, 1720 8th Avenue, South Birmingham 35233. Oph.

PUZON, Benjamin Q., b 34, mc Philip-pines 59, Limited Lic. 76, UAB Station, Birmingham 35294. Oto.

SAWYER, Nancy Jane, b 39, mc Ala. 74, recip. NBME 75, 1615 25th Street, North, Birmingham 35234. GP.

TURNER, Gary Ted, b 46, mc Iowa 72, recip. Iowa 73, 4236 Montevallo Road, Birmingham 35213. Oto.

WALKER, James Clinton, Jr., b 46, mc Ala. 72, recip. NBME 73, P. O. Box 2514, Birmingham 35201. DR.

#### MARSHALL COUNTY

KEY, Tommy Ray, b 46, mc Ala. 74, recip. NBME 75, 2024 Gunter Avenue, Guntersville 35976.

#### MORGAN COUNTY

RUSHING, Charles Maynard, b 33, mc Ala. 61, sb 62, 1120 Somerville Road, SE, Decatur 35601.

### deceased

#### CHOCTAW COUNTY

PARKER, Ivan, Jr., - 5-76.

#### JEFFERSON COUNTY

POOLE, William L., Sr., - 8-2-76.

#### MOBILE COUNTY

CHASON, Otis L. - Deceased.

### reinstated

#### COLBERT COUNTY

BOWEN, Robert Klien, Jr., b 39, mc Ala. 65, sb 66, 110 Palmetto Court, Longwood, Florida 32750. S.

### removed

#### HOUSTON COUNTY

DUBOSE, Edward McDonald, Jr., Dothan, Removed.

### licensure changes

#### JEFFERSON COUNTY

MIHAS, Anastasios A. - Recip. Georgia 1975.

### address changes

#### BIBB COUNTY

ARMSTRONG, Marc A., present Centreville to Doctor's Clinic, 500 West Main St., Lewisville, Texas 75067.

#### CALHOUN COUNTY

STOUT, Bill D., present Anniston to Rt. 5, Box 680-A, Anniston 36201.

#### DALLAS COUNTY

DUGAL, John Carles, present Selma to Rt. 1, Box N50, Sunset, La. 70584.

#### ELMORE COUNTY

RUDELL, Jeffrey H., present Tallassee to Rt. 2, Box 377, Eclectic 36024.

#### ESCAMBIA COUNTY

VANLANDINGHAM, J. A., present Evergreen to P. O. Box 549, Flomaton 3641.

#### ETOWAH COUNTY

GREENBERG, Harry L., present Gadsden to 3659 Buford Highway, NE, Tempo Majestic Apts. - G5, Atlanta, Georgia 30329.

#### JEFFERSON COUNTY

ALLEN, Thomas H., present Birmingham to 2018 Brookwood Medical Center Drive, Suite 107, Birmingham 35209.

AMATO, Simone J., present Maylene to Lloyd Noland Hospital, P. O. Box 538, Fairfield 35064.

BATSON, Walter P., present Birmingham to Suite 108, Brookwood Professional Bldg., 2018 Brookwood Medical Center Drive, Birmingham 35209.

BLACK, Joseph William, present Birmingham to Pikeville Methodist Hospital, US 23 Bypass, Pikeville, KY 41501.

CANNON, Nassif John, Jr., present Birmingham to Room L107, NBSB, University Sta., Box 67, UAB, Birmingham 35294.

CONTINUED ON PAGE 49

# JUST ONE CHEWABLE TABLET

usually eradicates pinworms in both  
children and adults<sup>†</sup>





## No dosage calculations

Vermox (mebendazole) offers a greatly simplified method of treating pinworm. Just one tablet, for every member of the family, regardless of weight or age.<sup>†</sup>

## Simplicity of administration

Patients can take the tablet at any time. It can be chewed, swallowed, or crushed and mixed with food. No messy liquids to pour.

## Not a dye

Vermox will not stain clothes, teeth, feces, toilet bowls, etc.

## Highly effective

In clinical studies, the pinworm mean cure rate with Vermox was 95% (range 90-100%). In cases where reinfection occurs, a repeat tablet is advised.

## Well tolerated

Transient symptoms of abdominal pain and diarrhea have occurred in cases of massive infection and expulsion of worms.

## Also effective against whipworm...as well as roundworm and hookworm

Just one simple dosage, regardless of weight or age,<sup>†</sup> for single or mixed infections: 1 chewable tablet b.i.d. for 3 consecutive days. If the patient is not cured 3 weeks after treatment, a second course of treatment is advised.

<sup>†</sup> Because Vermox has not been extensively studied in children under 2 years of age, the relative benefit/risk should be considered before treating these children. Vermox is contraindicated in pregnant women (see: Pregnancy Precautions) and in persons who have shown hypersensitivity to the drug.

# a single chewable tablet treatment for pinworm

# Vermox

chewable tablets

TRADEMARK

# (mebendazole)



**DESCRIPTION** VERMOX (mebendazole) is methyl 5-benzoylbenzimidazole-2-carbamate.

**ACTIONS** VERMOX exerts its anthelmintic effect by blocking glucose uptake by the susceptible helminths, thereby depleting the energy level until it becomes inadequate for survival. An insignificant amount of mebendazole is absorbed from the gastrointestinal tract. Most of this is excreted in the urine within three days either as metabolites or unchanged drug.

**INDICATIONS** VERMOX is indicated for the treatment of *Trichuris trichiura* (whipworm), *Enterobius vermicularis* (pinworm), *Ascaris lumbricoides* (roundworm), *Ancylostoma duodenale* (common hookworm), *Necator americanus* (American hookworm) in single or mixed infections.

Efficacy varies in function of such factors as pre-existing diarrhea and gastrointestinal transit time, degree of infection and helminth strains. Efficacy rates derived from various studies are shown in the table below.

	Trichuris	Ascaris	Hookworm	Pinworm
<b>cure rates</b> mean (range)	68% (61-75%)	98% (91-100%)	96% —	95% (90-100%)
<b>egg reduction</b> mean (range)	93% (70-99%)	99.7% (99.5-100%)	99.9% —	— —

**CONTRAINDICATIONS** VERMOX is contraindicated in pregnant women (see Pregnancy Precautions) and in persons who have shown hypersensitivity to the drug.

**PRECAUTIONS PREGNANCY** VERMOX has shown embryotoxic and teratogenic activity in pregnant rats at single oral doses as low as 10 mg/kg. Since VERMOX may have a risk of producing fetal damage if administered during pregnancy, it is contraindicated in pregnant women.

**PEDIATRIC USE** The drug has not been extensively studied in children under two years, therefore, in the treatment of children under two years the relative benefit/risk should be considered.

**ADVERSE REACTIONS** Transient symptoms of abdominal pain and diarrhea have occurred in cases of massive infection and expulsion of worms.

**DOSAGE AND ADMINISTRATION** The same dosage schedule applies to children and adults. For the control of pinworm (enterobiasis), a single tablet is administered orally, one time. For the control of roundworm (ascariasis), whipworm (trichuriasis), and hookworm infection, one tablet of VERMOX is administered, orally, morning and evening, on three consecutive days. If the patient is not cured three weeks after treatment, a second course of treatment is advised. No special procedures, such as fasting or purging, are required.

**HOW SUPPLIED** VERMOX is available as tablets, each containing 100 mg of mebendazole, and is supplied in boxes of twelve tablets.

VERMOX (mebendazole) is an original product of Janssen Pharmaceutica, Belgium, and co-developed by Ortho Pharmaceutical Corporation.



Ortho Pharmaceutical Corporation  
Raritan, New Jersey 08869



## Physicians' placement service in Alabama

*The Medical Association of the State of Alabama maintains the Physicians' Placement as a service to the medical profession in the state of Alabama. Opportunities for practice in Alabama will be published and will be distributed to physicians making inquiry. Physicians wishing to establish practice are invited to submit a resume to be kept on file with the Association. For further information write to: Mr. Emmett Wyatt, Executive Assistant, Medical Association of the State of Alabama, P. O. -Box 1900-C, Montgomery, Alabama 36104, or Telephone 263-6441.*

### LOCATIONS WANTED

*(Physicians interested in locating in Alabama)*

**General Practice:** Age 51; National University 1956; seeking solo, Emergency room or public health. LW-03372.

**Internal Medicine-Emergency Medicine:** Age 29, Medical College of Alabama 1972; National Board certified; American Board eligible; seeking emergency room, industrial, or multi-specialty group. LW - 03382

**Obstetrics & Gynecology:** Age 34; University of Oregon 1968; American Board Eligible; seeking single specialty group. Available September 1976. LW-10.

**Orthopedic Surgery:** Age 42; University of Washington 1962; American Board certified; seeking solo or limited partnership, preferably near Gulf Coast, 100,000 plus population Available December 1976. LW-1.

**PATHOLOGY:** Age 29; Univ. of Michigan 1972; National Board; seeking Assistant or Associate or Institutional. Available December 1976. LW-02.

**SURGERY:** Age 41; Univ. of Ottawa 1963; American Board Certified; seeking Associate; Available September 1976. LW-03.

**Surgery/General Practice:** Age 31; University of Florida 1971; Will be American Board Eligible 1976; seeking partnership, single specialty group or multi-specialty group. Available July 1977. LW-01589.

**Emergency Medicine - General Practice:** Age 27, Indiana University 1975; seeking Emergency Room, Multi-Specialty Group, or Single Specialty Group. Available July 1976. LW 03613.

**General Practice - Surgery:** Age 43, Cairo University. 1955; seeking Institutional, Multi-Specialty Group, Solo, or Partnership. Available August 1976. LW 03501.

**General Practice - Emergency Medicine:** Age 35, University of Toronto 1966 seeking Administrative, Solo, or Emergency Room. Available September 1976. LW 04811.

**Orthopedic Surgery:** Age 28; Emory University 1973; American Board Certified; seeking Single Specialty Group. Available July 1977. LW 15.

**Surgery:** Age 54; American Board Certified; Columbia 1948; seeking Associate, Single Specialty Group, or Academic. Available November 1976. LW 16.

**Urology:** Age 31, University of Mississippi 1970; American Board Eligible; seeking Single Specialty Group. Available July 1977. LW 17.

Sophomore Medical Student - age 22, interested in a town or hospital assisting with medical school costs in return for service there in general/family practice. Available 1980. LW-01.

### PHYSICIANS WANTED

*(Opportunities For Practice)*

**Internist & Family Physician** - Opportunity available for an Internist and a Family Physician in a community ten miles north of Mobile. Excellent growth potential. Financial assistance available. Abundant outdoor activities (30 miles from gulf). PW-15.

Physicians wanted (General Internal Medicine, Gastroenterologist, Dermatologist) Trade area, 400,000 population. Population of town: 45,000, located in Northeast Alabama. Small town advantages with big city conveniences within hour's drive. Ground floor professional opportunity to join a group of internists in the development of programs in General Internal Medicine, medical specialties, and other disciplines appropriate for the establishment of a regional multispecialty health clinic. Financial arrangements negotiable. No investment necessary. Opportunity for partnership in two years. PW-8

A community with combined population of 10,000 located near Mobile, Alabama is seeking a general practitioner. Office space available with living quarters. Several churches and schools. PW-9

**ASSOCIATE UNIVERSITY PHYSICIAN** - Immediate opening. Staff of nine physicians. Comprehensive primary care for 16,000 students. Delightful University town of Tuscaloosa, Alabama. Competitive salary and excellent fringes, including liability insurance. Alabama license and BNDD required. PW-10.

**EMERGENCY PHYSICIAN** - 60,000 and over, fee for service, 45 hour week, paid basic malpractice, life and convention expenses; modern E.R., Urban advantages. PW-12.

**General Practitioner's 2 family physicians** wanted for general practice in a 64-bed hospital, located between 2 North Alabama towns (in the heart of the Tennessee Valley) with a trade population of 18,000. Office space available. Within 35 miles of large city. Large amount of industrial work in our area. PW-7

**WANTED-General Internist or Subspecialist** with interest in general medicine. University town, population approximately 60,000, to join 4 other internists in a multi-specialty clinic setting; 250-bed expanding general hospital; all-specialty coverage, office expansion in progress; attractive living area. PW-11

Opportunity for General Practitioner in town of 4,000 population; trade area 30,000 population located in south-east Alabama within short distance of hospitals. One g.p. and two dentists presently in the town. Agricultural and industrial area. PW-3.



Opportunity for **General Practitioner** in town of 3,000 population; trade area 16,000 population located in south-east Alabama, within short distance of city of 35,000 population where there are two hospitals. Located 85 miles from Gulf Coast beaches. Office space and equipment available. Last physician in town died two years ago. Industrial and farming area. Churches, schools and recreational activities. PW-2.

**General Practitioner**—Opportunity in central Alabama town of 5,000 population, with a trade area of 30,000 population. Located 30 miles east of Montgomery, Alabama, and 28 miles west of Auburn University. Adjacent to Lake Martin. A new 77-bed hospital with a new Medical Arts Complex adjoining with office space available. Guaranteed income for a General Practitioner or Family Physician. W-4.

**Full-time Faculty Position:** Board Certified **Family Physician** to teach/practice in new and growing medical school. Teach family practice residents/medical students. Competitive salary/fringe benefits. An affirmative action/equal employment opportunity employer. PW-5.

CONTINUED ON PAGE 60



## Necrology

**EMMITT CLARENCE SINIARD, M.D.**  
1893-1976

Dr. Emmitt Clarence Siniard, Birmingham family physician, passed away June 27, 1976. He was 82 years of age. Dr. Siniard practiced medicine for 52 years, 28 with American Cast Iron Company and 19 with the Lloyd Noland Foundation.

He was a graduate of the Vanderbilt University School of Medicine. The family had requested that memorials be in the form of donations to the AMA Education and Research Foundation of Vanderbilt University School of Medicine or the Smelo Memorial Diabetic Trust of the Baptist Medical Center, Birmingham. ■

## Roster Supplement

CONTINUED FROM PAGE 45

**CONNERY, Francis M.**, present Birmingham to 2018 Brookwood Medical Center Drive, Suite 205, Birmingham 5209.

**GERMAN, Karl**, present Fairfield to 601 Princeton Avenue, Birmingham 5211.

**ILAND, Cecil Morgan**, present Birmingham to 407 Overlook Rd., S., Birmingham 35222.

**OLDSTEIN, Allan R.**, present Birmingham to 3809 Crestline Rd., Birmingham 35223.

**RIMES, Ben M.**, present Birmingham to Norwood Clinic, 1529 North 25th Street, Birmingham 35234.

**ANKINS, John G.**, present Birmingham to 2018 Brookwood Medical Center Drive, Suite 205, Birmingham 5209.

**ODGES, Steven C.**, present Bessemer to 412 Michael Lane, Birmingham 5213.

**AMMON, Gamewell A.**, present Birmingham to 2018 Brookwood Medical Center Dr., Suite G-2, Birmingham 5209.

**NIEDERER, Robert E.**, present Birmingham to 1605 Second Ave., N., Bessemer 35020.

**ERRELL, Clude**, present Bessemer to 517 N. 18th Street, Bessemer 5020.

**UNDERWOOD, James W.**, present Birmingham to 3348 Brookwood Road, Birmingham 35223.

**VIRGIN, William B., Jr.**, present Birmingham to 2950 Argyle Road, Birmingham 35213.

**WINDHAM, Thomas L.**, present Birmingham to 909 South 18th Street, Birmingham 35205.

### LOWNDES COUNTY

**NIEDERMAN, Leo Gerard**, present Hayneville to 1094 Wilson, University City, Missouri 63130.

### MADISON COUNTY

**KAKANI, Prasada Roa L. V.**, present Huntsville to 600 St. Clair Avenue, Huntsville 35801.

### MOBILE COUNTY

**BOX, Julia C., H.**, present Mobile to P. O. Box 7248, Mobile 36607.

**DAVIS, Thomas D.**, present Mobile to P. O. Box 66228, Mobile 36606.

**EDMONDS, Leland C.**, present Mobile to P. O. Box 66228, Mobile 36606.

**FELLERS, Paul H., Jr.**, present Mobile to P. O. Drawer 969, Fairhope 36532.

**FONTENOT, Joseph L.**, present Mobile to 1367 Government St., Suite 4, Mobile 36604.

**JOHNSON, Abel, L.**, present Mobile to P. O. Box 7248, Mobile 36607.

**JORDAN, Jerry D.**, present Mobile to 1367 Government St., Suite 4, Mobile 36604.

**MANSON, James E.**, present Mobile to P. O. Box 7248, Mobile 36607.

**MORTENSEN, Andreas V.**, present Mobile to 1501 Springhill Ave., Mobile 36604.

**O'GWYNN, John C., III**, present Mobile to 1501 Springhill Ave., Mobile 36604.

**PATTON, William B.**, present Mobile to 1408 Springhill Ave., Mobile 36604.

**VANHOOF, John F.**, present Mobile to 1731 Springhill Ave., Mobile 36604.

**WEBSTER, H. N., Jr.**, present Mobile to 21 Bienville Ave., Mobile 36606.

### MONTGOMERY COUNTY

**BROWN, H. Walker**, present Montgomery to 2055 Normandie Dr., Suite 314, Montgomery 36111.

**GAYDEN, Lewis R.**, present Montgomery to 1722 Pine St., Montgomery 36106.

**LASLIE, J. Cobb**, present Montgomery to 3456 Narrow Lane Rd., Montgomery 36111.

**YOW, John S.**, present Montgomery to 2055 Normandie Dr., Suite 314, Montgomery 36111.

### MORGAN COUNTY

**HAMILTON, J. S.**, present Decatur to 2312 Grienbriar Lane, S.E., Decatur 35601.

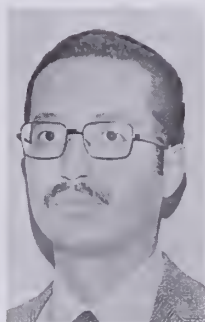
**RUBIN, Richard B.**, present Decatur to 2205 Beltline Rd., SW, Decatur 35601.

**TWENTE, George E., II**, present Decatur to P. O. Box 637, Decatur 35601.

### TUSCALOOSA COUNTY

**SAVERY, Henry W.**, present Tuscaloosa to 1010 32nd Avenue, Tuscaloosa 35401. ■

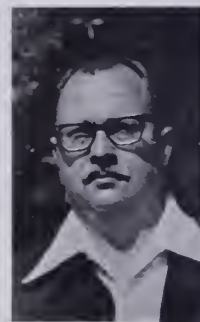
## New physicians licensed to practice in Alabama



**Bonilla-Santiago, Jaime, M.D.**, University of Puerto Rico School of Medicine, 1974. Reciprocity with National Board of Medical Examiners. Location: Craig AFB, Selma.



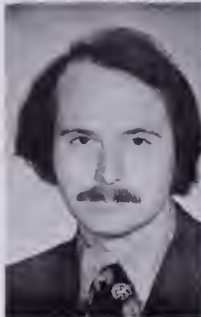
**Lagergren, Stephen Jonas, M.D.**, University of Cincinnati College of Medicine, 1975. Reciprocity with National Board of Medical Examiners. Location: Birmingham.



**Mason, John Franklin, Jr., M.D.**, University of Florida College of Medicine, 1961. Reciprocity with Florida. Specialty: Psychiatry.



**Kanuru, Sriharidas, M.D.**, Andhra University (Guntur, India), 1967. Reciprocity with Illinois (FLEX). Specialty: Pediatrics. Location: Sheffield.



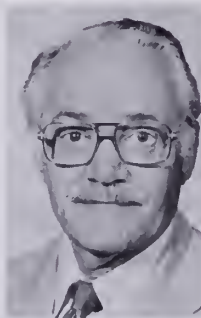
**Lanier, Douglas Campbell, Jr., M.D.**, University of Alabama School of Medicine, 1974. Reciprocity with National Board of Medical Examiners. Location: Mobile.



**McCraney, John Malcom, Jr., M.D.**, Emory University School of Medicine, 1973. Reciprocity with Georgia (FLEX). Specialty: Anesthesiology.



**Koffler, Warren Elliott, M.D.**, University of Alabama School of Medicine, 1975. Reciprocity with National Board of Medical Examiners. Location: Mobile.



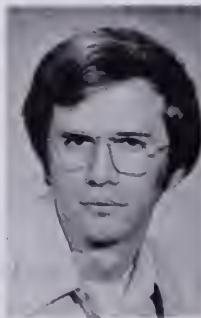
**Leslie, Samuel Peter, M.D.**, New York University School of Medicine, 1937. Reciprocity with Florida. Specialty: Anesthesiology.



**McGuffin, William Lewis, Jr., M.D.**, Duke University Medical School, 1970. Reciprocity with National Board of Medical Examiners. Specialty: Internal Medicine. Location: Birmingham.



**Kurian, James Lionel, M.D.**, Madras Medical College (India), 1961. Reciprocity with New York. Specialty: General Surgery. Location: Auburn.



**Manifold, George William, M.D.**, University of Alabama School of Medicine, 1974. Reciprocity with National Board of Medical Examiners.



**McLeod, James Wallace, M.D.**, Harry Medical College, 1969. Reciprocity with Georgia. Specialty: General Surgery. Location: Ozark.





**Moskowitz, Maurice Lee, M.D.**, University of Tennessee College of Medicine, 1964. Reciprocity with Tennessee. Specialty: Psychiatry. Location: Selma.



**Russell, John Burton, M.D.**, University of Mississippi School of Medicine, 1974. Reciprocity with Mississippi (FLEX). Location: Dothan.



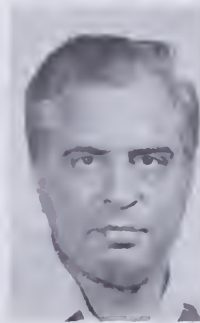
**Tutak, Unal, M.D.**, University of Istanbul Faculty of Medicine (Turkey), 1964. Reciprocity with Virginia (FLEX). Specialty: Anesthesiology. Location: Birmingham.



**Nowell, Richard Morrow, M.D.**, University of Mississippi School of Medicine, 1973. Reciprocity with Mississippi (FLEX). Specialty: Internal Medicine. Location: Birmingham.



**Sanders, Stephen Grady, M.D.**, Tulane University School of Medicine, 1975. Reciprocity with Louisiana (FLEX). Location: Irondale.



**Verma, Kewal Krishan, M.D.**, Sawai Singh Medical College (Jaipur, India), 1966. Reciprocity with South Dakota. Specialty: Family Practice. Location: Jacksonville.



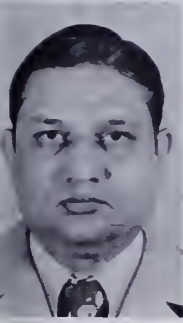
**Overton, John Hubbard, M.D.**, Tulane University School of Medicine, 1962. Reciprocity with Louisiana. Specialty: Pediatrics. Location: Winfield.



**Sarasombath, Suttipant, M.D.**, Mahidol University Faculty of Medicine (Thailand), 1967. Reciprocity with Georgia (FLEX). Specialty: Pathology. Location: Birmingham.



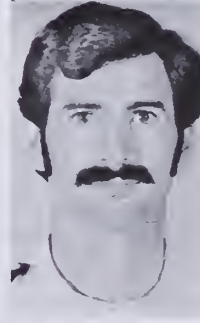
**Vigrass, Howard George, M.D.**, University of Saskatchewan (Canada), 1962. Reciprocity with Georgia. Specialty: Family Practice. Location: Columbus, Georgia.



**Parikh, Madhusudan Vithalsad, M.D.**, Baroda Medical College (India), 1962. Reciprocity with Connecticut. Specialty: Plastic Surgery. Location: Huntsville.



**Tharp, Ralph Powhatan, II, M.D.**, University of Minnesota Medical School, 1966. Reciprocity with Minnesota. Location: Birmingham.



**Williams, Robert Carson, M.D.**, University of Tennessee College of Medicine, 1968. Reciprocity with Tennessee. Specialty: Internal Medicine & Gastroenterology. Location: Birmingham.



**Priest, Marshall Franklin, M.D.**, University of Tennessee Center for Health Sciences, 1973. Reciprocity with Tennessee (FLEX). Location: Birmingham.



**Throckmorton, David William, M.D.**, University of Alabama School of Medicine, 1973. Reciprocity with National Board of Medical Examiners. Specialty: Internal Medicine. Location: Birmingham.



**Williamson, Howard Foster, M.D.**, University of Alabama School of Medicine, 1974. Reciprocity with National Board of Medical Examiners. Location: Birmingham.

# Digest of actions—State Committee of Public Health

*The following actions were taken by the State Committee of Public Health at its meeting on August 18, 1976.*

- Received progress report on approval of the State Health Planning and Development Agency by the Department of Health, Education and Welfare.
- Advised of the Hospital Regionalization Study. Phase I of this Study has been completed and Phase II will be delayed to prevent duplication under requirements of P.L. 93-641.
- Nominated Dr. Leon C. Hamrick for consideration as Alabama's nominee for the National Council on Health Planning and Development.
- Received composite four-year report of the Division of Narcotics and Dangerous Drugs and commended the unit for its economy of operation and for high performance standards and evidence of enforcement success.

## Digest of actions of the State Board of Censors

*Herewith is presented a Digest of Actions taken at the August 18 meeting of the State Board of Censors:*

- Approved Financial Statement for the period ending July 31, 1976, which shows receipts of \$89,370.23 and disbursements of \$291,992.65.
- Approved ALAPAC's final allotment of educational funds in the amount of \$2,500.00.
- Received as information status report on MASA's Printing Department.
- Approved Association's dues structure for career military physician-members be in the amount of \$125.00 for annual dues and for non-career military physician-members dues in the amount of \$10.00.
- Approved expenditure of funds (approximately \$1,500) to produce a color, 30-second public service announcement on the Heimlich Maneuver for broadcast on Alabama's 17 commercial television stations plus the 7 public broadcast stations.
- Instructed Dr. Wright, MASA Pres., with input from Dr. Myers, State Health Officer, to prepare an official "statement of position" by the Association on the swine flu immunization program for Alabama.
- Charged MASA's Council on Public Affairs with the responsibility of investigating the feasibility of the Association employing a public relations firm to assist in furthering the image of medicine in the State of Alabama.
- Received as information the report of MASA's Legal Department, containing legal opinions of consent laws and access to medical records.
- Received as information the status report on State Health Legislation.
- Instructed MASA's Pres. to meet with the Pres. of the Alabama Pharmaceutical Association on matters of mutual concern, in regard to future legislation.
- Received as information the Republican Platform on Health Care.
- Received as information the report of the Insurance Department regarding survey results for the proposed doctor-owned mutual insurance company.

- Approved the initial issuance of Assurances of Need for 12 health facilities.
- Approved Carraway Methodist Medical Center, Birmingham, for the purchase and installation of a whole body Computerized Axial Tomography Scanner.
- Revoked one Medicaid Plan Amendment as being no longer necessary and approved two Plan Amendments, one dealing with procedures for determining the number of days of stay beyond 60 days in institutions and, two, the effective date of July 1, 1976, for psychiatric care of individuals under 2 years of age.
- Approved use of Current Procedural Terminology Code beginning October 1, 1976, for identifying physician services.
- Approved resolution seeking cooperation of labor unions, management, and all persons concerned in labor union demonstrations or disputes involving health care facilities, requesting that all parties keep paramount the needs and welfare of patients and limit activity so as not to adversely affect the patients.
- Received advice from Legal Counsel regarding suits involving the Committee and the Department of Public Health in its various capacities.
- Approved communication from the State Committee of Public Health to the Houston County Board of Health declaring overcrowding and insanitary conditions as a public health hazard and nuisance and supporting the county boards of health in their efforts to abate this nuisance.
- Advised by the State Health Officer of the significant budgetary restrictions as a result of the decreased appropriations by the legislature from the General Fund, noting that there would be no new programs, services could be curtailed and that Medicaid would have significant problems in modifying its services to stay within the budget allocation provided.
- Took note of the significant progress in Tuberculosis control in Alabama and its importance to developing countries to emphasize out-patient treatment rather than in-patient treatment as a more economical and effective public health measure.
- Received updated report on Influenza virus vaccine A/New Jersey (Swine) and the bivalent, or mixed, vaccine (A/New Jersey, A/Victoria strains) available for the aged and infirmed. Monovalent vaccine has been delayed at least a month and bivalent is currently expected about mid-September.
- Received complete 1975 Annual Report entitled "A New Century — A New Plan." ■

## GETTING AT THE CORE

Two apples up in a tree were looking down on the world—and the first apple said, "Look at all those people—fighting, robbing, demonstrating, killing. Some day we apples will be the only ones left—and then we'll rule the world!"

To which the second apple replied, grimly, "Which ones of us—the reds or the greens?" ■



## Auxiliary

Mrs. George F. Scofield  
President

### A LITTLE CHILD SHALL LEAD THEM



It is hard to teach an old dog new tricks and even harder to inspire adults to better health habits. Physicians and educators alike agree that a coordinated comprehensive health education curriculum from kindergarten through twelfth grade is essential to improve the quality of life of all citizens. We must see health taught as a subject — not just as a rainy day substitute for physical education — with a definite time assigned and with trained teachers.

Congress found that health education deserves priority consideration. Large segments of the public are lacking in basic knowledge regarding proper personal health care and methods for effective use of available health services. Attention needs to be given on the basis of prevention as well as treatment of such health problems as alcohol and drug abuse, smoking and health, physical fitness, mental health, family life and human development, human ecology, the need for continuous health supervision, venereal disease, nutrition, accident prevention and safety, and consumer education.

The Alabama Course of Study Committee has interpreted the Alabama State Legislative Act, Title 51, section 55 to mean a planned course of study in health and physical education for each student every day, taught by a teacher with a major or minor in health and physical education with the length of classes to meet minimum requirements.

A Health Education specialist, Dr. Mabel C. Robinson, has been appointed by Dr. Wayne Teague, State Superintendent of Education for Alabama, to assist school systems to improve the quality of their health education programs. The State Department of Education has enlisted parents, civic groups, health agencies, and teacher training institutions to help plan and implement this program of comprehensive health education.

The Auxiliary to MASA has pioneered in Alabama to help bring about the present optimistic circumstances. It has been through persistent efforts and much concern that this curriculum has been approved and we are glad to report the following resolution adopted by the Alabama State

CONTINUED ON PAGE 25

## DEAN'S REPORT CONTINUED FROM PAGE 42

great deal of primary care these days. The question is whether our residency training programs in those specialties are giving sufficient weight to this fact of modern life. To me, they seem too exclusively focused on episodes of illness which require hospital care. They lack provisions for long-term observation and treatment of ambulatory patients, and they omit the useful experience in some of the common nonsurgical aspects of such specialties as gynecology, orthopedics, or otolaryngology."

Dr. Beeson goes on to state, "My recent experience at Oxford satisfied me that it is possible to practice good hospital medicine and to teach medical students without having experts in every conceivable subspecialty available. It doesn't hurt any of us to have to go and study about a clinical problem when no expert happens to have a room down the corridor." He believes that "the best training 25 years ago was superior to the best training today."

Not everyone, obviously, agrees with Dr. Beeson on all of his points, and it is unfair to quote excerpts out of context. It is fair, however, to say that Dr. Beeson strongly supports the necessity for a highly-skilled and sophisticated core of biomedical investigators in a teaching hospital, but he recognizes that no institution, especially a relatively small one, can be all things to all people, that its research must be limited to certain priority areas, but, equally important, the institution must have a staff providing a high level of clinical competence even if all the staff members are not heavily committed to clinical research.

Many professors of medicine and other medical school faculty members are now sensitive to the fact that their training programs must produce more generalists qualified and interested in primary care. In my opinion, given another ten years, there will be marked changes in the character of medical education in many of our medical centers.

The development of community-based medical schools and of clinical campuses such as those at Tuscaloosa and Huntsville is adding a new thrust toward the modification of medical education. However, it would appear that on many of these campuses, not all ingredients of an optimal educational environment for medical students and residents have been assembled as yet.

**IT TAKES TIME** to develop a new program, and it requires adequate resources. What we have in most of these centers, including Tuscaloosa, is a nucleus of good clinical teachers, some full-time, some drawn from the community of practicing physicians, who can teach in the way that Dr. Beeson believes is desirable. "Although our teaching hospitals team with people who have information to impart, students seldom enjoy more than a brief contact with any of them. One would like to see opportunity for prolonged interactions with smaller numbers of teachers, some of whom are clinical scientists, and some of whom are good doctors engaged mainly in the care of patients."

The clinical expertise in these nonmedical school campuses appears generally adequate for undergraduate medical education and for the training of family practice residents. It is not adequate in many situations for residency training in various specialty fields, but most of these programs have

CONTINUED ON PAGE 59

Pres.—Mrs. George F. Scofield/Pres.-Elect—Mrs. John S. Taylor/First Vice-Pres.—Mrs. Aubrey Terry/NE Vice-Pres.—Mrs. Eugene H. Bradley/SE Vice-Pres.—Mrs. Rufus Lee/SW Vice Pres.—Mrs. William P. Basoon/NW Vice-Pres.—Mrs. Wilfred Yeagan/AMASA Editor—Mrs. William Smith.



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Before prescribing, please review complete product information, a summary of which follows:

**Indications:** For relief of acute bronchial asthma and for reversible bronchospasm associated with chronic bronchitis and emphysema.

**Precautions:** Exercise caution with use in the presence of severe cardiac disease, renal or hepatic malfunction, glaucoma, hyperthyroidism, peptic ulcer, and concomitant use of other xanthine-containing formulations or other CNS stimulating drugs.

**Adverse Reactions:** May cause nausea, headache, cardiac palpitation and CNS stimulation. Postprandial administration may help to avoid gastric discomfort.

**How Supplied:**

LUFYLLIN, 200 mg., Tablets: NDC 19-R521-92, bottle of 100; NDC 19-R521-97, bottle of 1000.

LUFYLLIN Elixir: NDC 19-R515-68, pint bottle; NDC 19-R515-69, gallon bottle.

LUFYLLIN Injection: NDC 19-R537-T2, box of 25 x 2 ml. ampuls.



For relief of acute bronchial asthma and for reversible bronchospasm associated with chronic bronchitis and emphysema.

# LUFYLLIN<sup>®</sup> ...a basic need for the (dyphylline) bronchospastic patient.

Tablets: 200 mg dyphylline

Elixir: per 15 ml: dyphylline 100 mg,  
alcohol 20% v/v

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1. Therapeutically effective
2. Little to no CNS stimulation
3. Little to no gastric upset
4. Effective during long-term therapy
5. Only 1/5 the toxicity of theophylline or aminophylline<sup>1,2,3</sup>  
(based on animal studies)

### REFERENCES

1. McColl, J. D., et al.: *J. Pharm. & Exp. Therap.* 116:343, 1956
2. Quevauviller, Par Andre, et al.: *Presse Med.* 61:1480-1482, 1953
3. Maney, P. V., et al.: *J. Am. Pharm. Assoc.* 35:266-272 1946

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The Retreat offers a full range of routine diagnostic, therapeutic, laboratory, x-ray, EKG, EEG and electroconvulsive treatments.

Treatment programs of staff psychiatrists and consultants include occupational, recreational, social services and tutoring.

The Retreat is a member of: National Association of Private Psychiatric Hospitals; North Alabama Regional Hospital Council; Alabama Hospital Association.

Fully accredited by Joint Commission on Accreditation of Hospitals. Medicare approved. A participating Blue Cross Hospital.

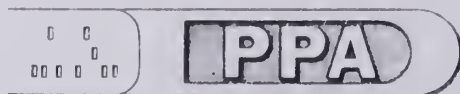
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Not only does he provide in depth counseling and professional estate analysis, but also he is qualified to work with your lawyer and accountant in developing the tax sheltered retirement plans upon which you depend so heavily for your later years.

What's more, Don is known for his proficiency in evaluating the fringe benefit planning needs of professional associations.

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It starts with having enough incoming lines. There's a Com Key system to handle as few as two and as many as 14.

Then a sleek, desktop Com Key telephone set routes the calls to as many as 34 stations. By either a voice signal—through a speaker on the side of each phone—or a tone.

One distinctive tone for outside calls and another for intercom messages lets busy workers set priorities. And if you're already on the phone, a muted verbal message or tone tells you another call is standing by.

Other standard features include Multi-Line Conferencing for tying your business line and two or more outside lines together; key buttons that pop up on disconnect, preventing others from inadvertently picking up in the middle of someone else's conversation; and your choice of telephone faceplates in colors or woodgrain finishes to match or complement any office decor.

Options abound. A compact auxiliary console lets your receptionist light a "Mes-

sage Waiting" bulb on any busy or unattended set. It also has a bank of lamps to indicate which phones are currently in use.

There's a paging system that can broadcast to the entire office area or selectively to specific departments. And when the speakers aren't carrying messages, they can be used for other purposes such as background music. (That same music can be piped into the system's "hold" function to entertain waiting callers.)

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One more important item that's got to figure in any business phone decision: service and maintenance. At Bell, we take total responsibility. One Bell System—it works.

So cover all the bases before choosing a new office telephone system. Call in a South Central Bell Communications Consultant at no extra cost. Get the total story on Com Key systems.



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**COM KEY SYSTEMS  
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## HEMATOLOGY

**DIRECTIONS:** For each of the questions or incomplete statements below, ONE or MORE of the answers or completions given is correct. Select the answer according to:

- A if only 1, 2, and 3 are correct.
- B if only 1 and 3 are correct.
- C if only 2 and 4 are correct.
- D if only 4 is correct.
- E if all are correct.

### Directions Summarized

A  
1, 2, 3  
only

B  
1, 3  
only

C  
2, 4  
only

D  
4  
only

E  
All are  
correct

1. Hemoglobin F may represent more than 5 per cent of the hemoglobin in which of the following?
  1. Pernicious anemia
  2. Aplastic anemia
  3. Sickle cell anemia
  4.  $\alpha$ -Thalassemia minor
2. Which of the following is/are associated with monoclonal gamma globulins?
  1. Chronic granulocytic leukemia
  2. Chronic lymphocytic leukemia
  3. Acute lymphoblastic leukemia
  4. Macroglobulinemia
3. There is a clinical syndrome referred to as eosinophilic leukemia by some and as hypereosinophilic syndrome by others. Which of the following may be associated with this clinical syndrome?
  1. Hepatosplenomegaly
  2. Heart failure due to myocardial and endocardial fibrosis, and eosinophilic infiltrates of the myocardium
  3. Central nervous system symptoms due to direct eosinophilic infiltration and multiple thrombi in small vessels.
  4. Skin involvement with rash, infiltrates and subcutaneous eosinophilic tumors

4. Nucleated erythrocytes found in the peripheral blood smear may be
  1. an indirect manifestation of severe blood destruction
  2. occasionally a manifestation of congestive heart failure
  3. evidence of extramedullary erythropoiesis
  4. a manifestation of bone marrow aplasia
5. Alcohol ingestion even in the presence of adequate folic acid intake can result in
  1. vacuolization of bone marrow cells
  2. an increase in serum iron
  3. reticulocytopenia
  4. thrombocytopenia
6. Excessive fibrinolytic activity may be effectively controlled by the proper use of
  1. aspirin
  2. urokinase
  3. streptokinase
  4.  $\epsilon$ -aminocaproic acid (EACA)
7. A 65-year-old woman has chronic lymphocytic leukemia. Which of the following is/are likely to be found in this patient?
  1. Thrombocytopenia
  2. Acquired hemolytic anemia
  3. Hypogammaglobulinemia
  4. Philadelphia ( $Ph^{11}$ ) chromosome
8. The spleen is the major site of erythrocyte destruction in which of the following disorders?
  1. Sickle cell disease in adults
  2. Paroxysmal nocturnal hemoglobinuria
  3. Pernicious anemia
  4. Hereditary spherocytosis
9. A 56-year-old man was found on routine examination to have a hemoglobin of 19 gm/100 ml. Leukocyte and platelet counts were normal. His mother and two of his five children also have erythrocytosis. Which of the following might be anticipated?
  1. An electrophoretically abnormal hemoglobin comprising less than half of the hemolysate
  2. Decreased oxygen saturation of an arterial blood sample
  3. A "shift to the left" of the whole blood oxygen dissociation curve
  4. Multiple endocrine adenomata
10. Which of the following may be important in the development of infection by opportunistic fungi?
  1. Administration of corticosteroids
  2. Elevated blood glucose levels
  3. Use of immunosuppressive agents
  4. Debilitating disease

### CORRECT ANSWERS

- |      |       |      |
|------|-------|------|
| 1. A | 4. A  | 7. A |
| 2. C | 5. E  |      |
| 3. E | 6. D  |      |
|      | 8. D  |      |
|      | 9. B  |      |
|      | 10. E |      |



# Bureau of Preventable Diseases

FREDERICK S. WOLF, M.D., DIRECTOR

## MENINGOCOCCAL MENINGITIS

Mobile County has reported two cases of meningococcal meningitis. One of these cases responded to therapy to achieve a good recovery. The second patient died. The organisms received were confirmed as *N. meningococcus*. Preliminary typing indicated these were type "B" and "C". The deceased patient was infected with type "B" *N. meningococcus*.

These cases do not appear to be associated with the McIntosh epidemic reported earlier in 1976.

Prophylaxis was provided close contacts.

## INFLUENZA

Following the identification of a new influenza virus designated A/New Jersey/76 (Hsw1N1) in February 1976, Federal and State agencies joined cooperatively in a nationwide program to immunize the population of the United States against this new viral strain of influenza.

The proposed nationwide influenza immunization program has been faced with a series of obstacles any one of which, without resolution, could have canceled the mass immunization program. The most serious issue determining the actuality of the program is that of indemnification sought by the pharmaceutical manufacturers.

While pharmaceutical companies, insurance companies, and government representatives wrestle with this problem, State health agencies are moving forward with the necessary steps to insure adequate preparation for the program within each State.

Alabama has a coordinated plan of action for immunization that involves Federal, State, and local health agencies. Vaccine will be administered through the private and public sectors. Private physicians will be furnished vaccine through the local public health department.

Vaccines will be provided during the month of September. Bivalent vaccine consisting of both A/New Jersey and A/Victoria will also be available during the month of September for persons over 65 years of age and/or chronically ill. The amount of vaccine available for private use will depend on the total supply allotted to Alabama.

The vaccine is contraindicated for those who have hypersensitivity to egg protein and for those who have received, within fourteen days, vaccines which commonly evoke febrile responses.

While emphasis is being placed on the influenza program, medical practitioners are encouraged to maintain routine immunization activities.

## TUBERCULOSIS

Recently available data distributed nationally shows that Alabama has the seventh highest tuberculosis case rate in the nation.

## GONORRHEA—July, 1976

Total Female Specimens	20,561
Positive Cultures	1,097
Positive	5.3%
Submitted from Private Practice	11,769
Positive Cultures	324
Positives	2.8%

## DEAN'S REPORT CONTINUED FROM PAGE 53

not as yet undertaken residency programs in these other specialties, and whether or not they will or should is a matter for debate, for the development of adequate resources and for the future.

What is lacking for the current program is a small core of "skilled and sophisticated biomedical investigators," although the current faculty, drawn partly from practice and partly from the academic world, are beginning to develop modest investigative and scholarly programs. The university base provided by the Tuscaloosa and Huntsville campuses offers the opportunity, which will take time to develop, of adapting existing investigative resources of the University into the local academic medical education environment and program.

Much, but not all, of the investigative and demonstration work of programs like those at Tuscaloosa and Huntsville should be focused on community medicine, studying ways to solve the problems inherent in the delivery of health care to the people. This requires an interdisciplinary type of effort and may involve economists, administrators, social scientists, and others, as well as physicians. This is all the more reason for these programs to be based on strong university campuses.

What does this mean for the state of Alabama? Will it receive an adequate return in meeting the needs of the people of the state for health care for its expenditure in medical education? I believe that it will.

IT MEANS FOR certain that, in contrast to Dr. Beeson's experience, there is now a great deal of discussion, both formal and informal, "regarding the appropriateness of our training programs to the needs of the nation." If one could separate dollars just for medical education from those for research, demonstration and service (the Tuscaloosa and Huntsville programs have large components of demonstration and service, and the UAB program has large components of research and service), probably the costs at non-medical school campuses would not be greatly different on a per-student basis from the large medical centers.

These new developments also mean that the pendulum of medical education is swinging back to midpoint, avoiding the imbalance of excessive specialization and subspecialization, and yet not losing the advances made in medical science. Hopefully, these new developments mean that the state will produce a better balance of physicians by specialty, trained and oriented to serve the needs of our people more adequately.

## Reference

1. "The Ways of Academic Clinical Medicine in America Since World War II," Paul Beeson, M.D., *Man and Medicine, The Journal of Values and Ethics in Health Care*, Vol. 1, No. 1, February, 1975. ■

## PHYSICIANS' PLACEMENT SERVICE

**General Surgeon** needed in progressive rural community of about 1,000 people with trade area of 20,000, for 36-bed, joint commission approved hospital. Located in East Central Alabama, within 90 miles of Atlanta, 100 miles of Montgomery and Birmingham, and within 20 minutes of I-20. Guaranteed office space with rent to be worked out. Interested parties and their families are invited to visit with expenses paid. PW-13/1.

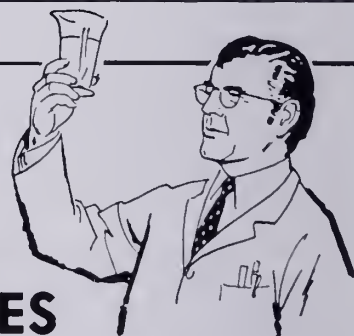
**GENERAL PRACTITIONER** needed in progressive rural community of about 1,000 people with trade area of 20,000, for 36 bed, joint commission approved hospital. Located in East Central Alabama, within 90 miles of Atlanta, 100 miles of Montgomery and Birmingham, and within 20 minutes of I-20. Guaranteed office space with rent to be worked out. Interested parties and their families are invited to visit with expenses paid. PW-13

**2 GENERAL PRACTITIONERS** wanted to locate in Central Alabama town with 17,000 population and a trade area of 35,000 population. Good 68 bed hospital, located near large city with specialty consultants available. Excellent fishing, camping, hunting, golf and schools. Excellent location to raise a family and practice medicine. Healthy stable economy. On call days only, nights and weekends covered. Office suites available rent free for the first 12 months, also other financial assistance available; including moving expenses, also interested parties can be offered invitations to visit with expenses paid. PW-11. ■

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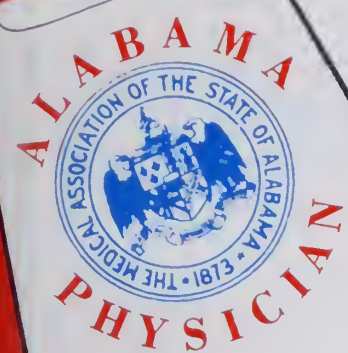
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# JOURNAL

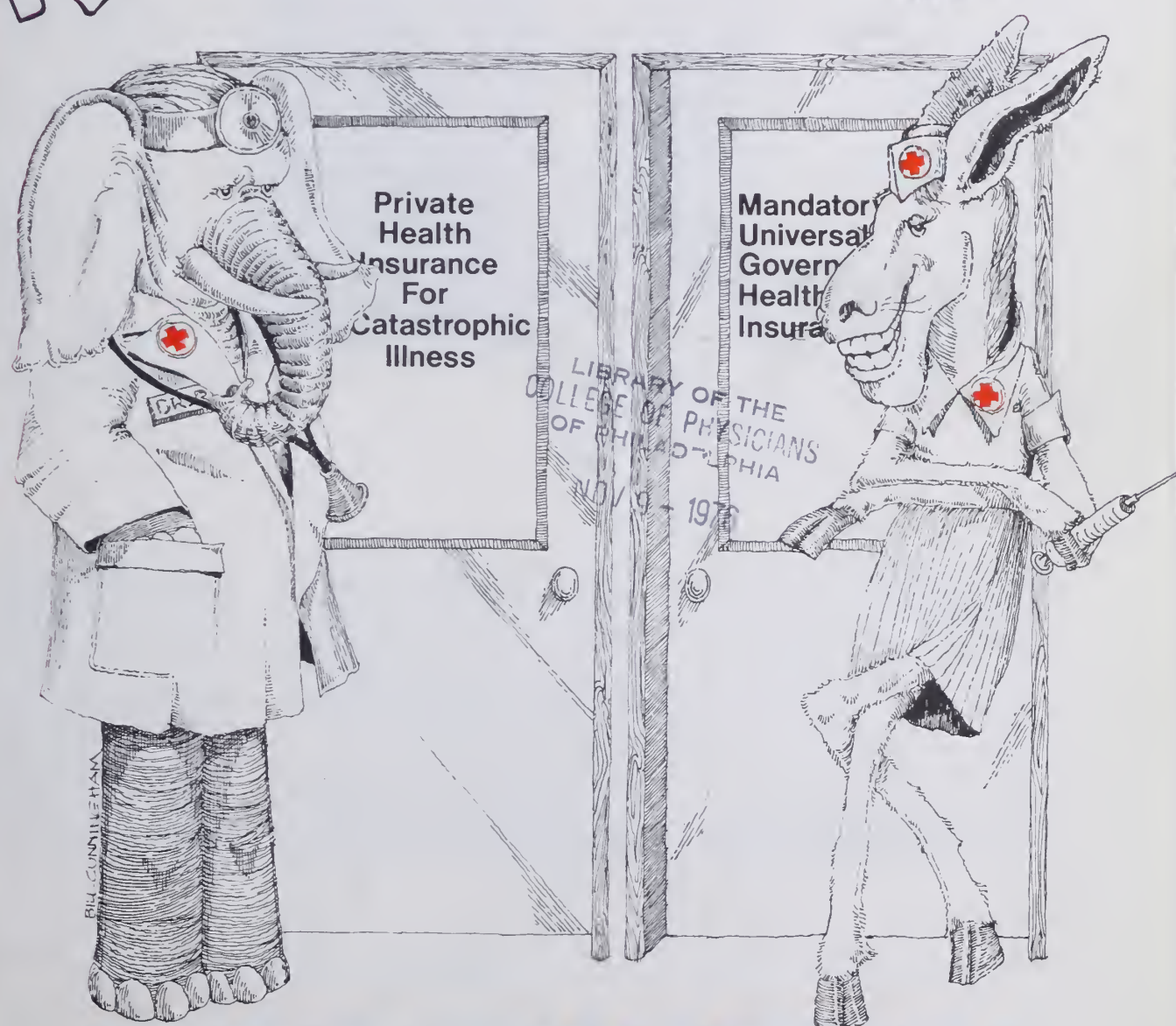
## of the Medical Association of the State of ALABAMA



OCTOBER 1976

*vol. 46 #4*

*MDS*



**Your Appointment Is For November 2**

# Both often



Predominant  
psychoneurotic  
anxiety

Associated  
depressive  
symptoms

**Before prescribing, please consult complete product information, a summary of which follows:**

**Indications:** Tension and anxiety states; somatic complaints which are concomitants of emotional factors; psychoneurotic states manifested by tension, anxiety, apprehension, fatigue, depressive symptoms or agitation; symptomatic relief of acute agitation, tremor, delirium tremens and hallucinosis due to acute alcohol withdrawal; adjunctively in skeletal muscle spasm due to reflex spasm to local pathology, spasticity caused by upper motor

neuron disorders, athetosis, stiff-man syndrome, convulsive disorders (not for sole therapy).

**Contraindicated:** Known hypersensitivity to the drug. Children under 6 months of age. Acute narrow angle glaucoma; may be used in patients with open angle glaucoma who are receiving appropriate therapy.

**Warnings:** Not of value in psychotic patients. Caution against hazardous occupations requiring complete mental alertness. When used adjunctively in convulsive dis-

orders, possibility of increase in frequency and/or severity of grand mal seizures may require increased dosage of standard anti-convulsant medication; abrupt withdrawal may be associated with temporary increase in frequency and/or severity of seizures. Advise against simultaneous ingestion of alcohol and other CNS depressants. Withdrawal symptoms (similar to those with barbiturates and alcohol) have occurred following abrupt discontinuance (convulsions, tremor, abdominal and muscle cramps, vomiting and sweating). Keep addiction-prone individuals under careful



# respond to one

According to her major symptoms, she is a psychoneurotic patient with severe anxiety. But according to the description she gives of her feelings, part of the problem may sound like depression. This is because her problem, although primarily one of excessive anxiety, is often accompanied by depressive symptomatology. Valium (diazepam) can provide relief for both—as the excessive anxiety is relieved, the depressive symptoms associated with it are also often relieved.

There are other advantages in using Valium for the management of psychoneurotic anxiety with secondary depressive symptoms: the psychotherapeutic effect of Valium is pronounced and rapid. This means that improvement is usually apparent

in the patient within a few days rather than in a week or two, although it may take longer in some patients. In addition, Valium (diazepam) is generally well tolerated; as with most CNS-acting agents, caution patients against hazardous occupations requiring complete mental alertness.

Also, because the psychoneurotic patient's symptoms are often intensified at bedtime, Valium can offer an additional benefit. An *h.s.* dose added to the *b.i.d.* or *t.i.d.* treatment regimen can relieve the excessive anxiety and associated depressive symptoms and thus encourage a more restful night's sleep.



**Valium<sup>®</sup>**  
**(diazepam)** (IV)

2-mg, 5-mg, 10-mg scored tablets

in psychoneurotic  
anxiety states  
with associated  
depressive symptoms

surveillance because of their predisposition to habituation and dependence. In pregnancy, lactation or women of child-bearing age, weigh potential benefit against possible hazard.

**Precautions:** If combined with other psychotropics or anticonvulsants, consider carefully pharmacology of agents employed; drugs such as phenothiazines, narcotics, barbiturates, MAO inhibitors and other antidepressants may potentiate its action. Usual precautions indicated in patients severely depressed, or with latent depression, or with suicidal tendencies.

Observe usual precautions in impaired renal or hepatic function. Limit dosage to smallest effective amount in elderly and debilitated to preclude ataxia or oversedation.

**Side Effects:** Drowsiness, confusion, diplopia, hypotension, changes in libido, nausea, fatigue, depression, dysarthria, jaundice, skin rash, ataxia, constipation, headache, incontinence, changes in salivation, slurred speech, tremor, vertigo, urinary retention, blurred vision. Paradoxical reactions such as acute hyperexcited states, anxiety, hallucinations, increased muscle

spasticity, insomnia, rage, sleep disturbances, stimulation have been reported; should these occur, discontinue drug. Isolated reports of neutropenia, jaundice; periodic blood counts and liver function tests advisable during long-term therapy.



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P.L. 94-380:  
dated Aug. 12, 1976

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**Blue Cross<sup>®</sup>**  
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of Alabama



**S. LON CONNER**, a native of Montgomery and former executive with the Alabama Development Office, takes MASA's reins as Executive Director on November 15. Announcement of Conner's selection by a special "search" committee of the Board of Censors was made during the October meeting of the Board.

Conner brings to the Association a managerial and business administration background, including a Master's degree from Auburn University, a period as a private entrepreneur in Montgomery, and two years with state government. Perhaps, most importantly, he brings to the job a positive outlook and willingness to get the job done.

The quest by the "search" committee took time, some four and a half months. Members of the committee were diligent in their efforts to find the right man to fill the Executive Director's "blue chair."

However, their charge was not to find just a "warm body," but to choose a capable leader for this Association in the days to come. MASA continues to grow, experiencing the normal ups and downs along the way. There are many administrative responsibilities in MASA's day-to-day operation and it is the Executive Director's job to shoulder the weighty burden of making the right decisions to keep MASA from wandering from the beaten path. It's a tough job. The committee knew that and as a result, made no hasty decision.

MASA welcomes Lon Conner, his ideas and his programs to 19 South Jackson Street. "It's nice to have you aboard!"

\*\*\*

**ABOUT THE COVER:** The *Journal* wishes to thank Montgomery artist Bill Cunningham for his excellent rendition of the 1976 platforms on NIH by the two major political parties. The reader will find on pages 16 - 17 the portions of both platforms which deal specifically with health care and NIH. The *Journal* takes no position on candidate support, but seeks to present the facts and allow the reader to make his own decision as to how he will vote.

#### BRIEF SUMMARY OF PRESCRIBING INFORMATION

#### **ANTIMINTH®** (pyrantel pamoate) **ORAL SUSPENSION**

**Actions.** Antiminth (pyrantel pamoate) has demonstrated anthelmintic activity against *Enterobius vermicularis* (pinworm) and *Ascaris lumbricoides* (roundworm). The anthelmintic action is probably due to the neuromuscular blocking property of the drug.

Antiminth is partially absorbed after an oral dose. Plasma levels of unchanged drug are low. Peak levels (0.05-0.13 µg/ml) are reached in 1-3 hours. Quantities greater than 50% of administered drug are excreted in feces as the unchanged form, whereas only 7% or less of the dose is found in urine as the unchanged form of the drug and its metabolites.

**Indications.** For the treatment of ascariasis (roundworm infection) and enterobiasis (pinworm infection).

**Warnings.** *Usage in Pregnancy:* Reproduction studies have been performed in animals and there was no evidence of propensity for harm to the fetus. The relevance to the human is not known.

There is no experience in pregnant women who have received this drug.

The drug has not been extensively studied in children under two years; therefore, in the treatment of children under the age of two years, the relative benefit/risk should be considered.

**Precautions.** Minor transient elevations of SGOT have occurred in a small percentage of patients. Therefore, this drug should be used with caution in patients with preexisting liver dysfunction.

**Adverse Reactions.** The most frequently encountered adverse reactions are related to the gastrointestinal system.

Gastrointestinal and hepatic reactions: anorexia, nausea, vomiting, gastralgia, abdominal cramps, diarrhea and tenesmus, transient elevation of SGOT.

CNS reactions: headache, dizziness, drowsiness, and insomnia. Skin reactions: rashes.

**Dosage and Administration.** *Children and Adults:* Antiminth Oral Suspension (50 mg of pyrantel base/ml) should be administered in a single dose of 11 mg of pyrantel base per kg of body weight (or 5 mg/lb.); maximum total dose 1 gram. This corresponds to a simplified dosage regimen of 1 ml of Antiminth per 10 lb. of body weight. (One teaspoonful=5 ml.)

Antiminth (pyrantel pamoate) Oral Suspension may be administered without regard to ingestion of food or time of day, and purging is not necessary prior to, during, or after therapy. It may be taken with milk or fruit juices.

**How Supplied.** Antiminth Oral Suspension is available as a pleasant tasting caramel-flavored suspension which contains the equivalent of 50 mg pyrantel base per ml, supplied in 60 ml bottles and Unitcups™ of 5 ml in packages of 12.

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# One swallow does it

A close-up, stylized illustration of a child's face. The child has large, expressive brown eyes with black outlines, a small nose, and a wide, smiling mouth. A silver spoon is held in the mouth, with the child's lips curled around it. The child has short, wavy brown hair. The background is a solid dark color, making the face stand out.

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- **Single dose effectiveness against both pinworms and roundworms—**

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In addition to care by psychiatrists and by consultants in all medical specialties, the treatment program includes occupational, recreational, and physical therapy, social services, and tutoring. Emphasis is on short-term, intensive treatment of voluntary patients.

Hill Crest is a member of: American Hospital Association, National Association of Private Psychiatric Hospitals, Alabama Hospital Association, Birmingham Regional Hospital Council.

Accredited by Joint Commission on Accreditation of Hospitals. Medicare Approved. Blue Cross Participating Hospital.

## HILL CREST HOSPITAL

*HILL CREST FOUNDATION, INC.*

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### WHY DO PATIENTS SUE DOCTORS?

We are well along the way to forming our own professional liability insurance company and at this point in time, it would behoove each of us to take a hard look at just why patients sue physicians to begin with! There is no simple answer to this dilemma. However, several facts should be observed as we attempt to find answers.

As the delivery of health care becomes more complex, the more frustrated the patient becomes when all does not seem to go well. It goes without saying that we all realize medicine is an art, not an exact science and the results will not always be good, but who does the patient turn to when things do not turn out well?

I am reminded of a story concerning a contractor friend of mine who built my home a number of years ago. He said, "Doc, if you wake up on a rainy morning five years from now with rain dripping on your face, you will not remember the name of the subcontractor who put the roof on, but you will probably say 'that blame Jim Salter did a lousy job of building my house'".

We in medicine should analyze this story closely because it applies to us.

According to 1975 statistics released in January, 1976, 86% of all medical malpractice suits arise from an in-hospital situation, yet only 32% of the judgments were paid by hospitals.

Of further interest, these same statistics reveal the solo rural family physician to be more immune to suit than the highly specialized urban physician. We as physicians realize that these physicians are of equal value in the delivery of good health care to all citizens. However, in the delivery of health care within a highly specialized setting, the patient may feel he is in a depersonalized situation. Possibly, he may really be upset at an orderly, secretary or nurse's aid.

This may start a chain reaction within the patient's attitude and thereby affect his feeling toward the quality of medical care he is receiving.

Combine this with an unavoidable poor result, an attempt to collect the bill at a later date, and a receptionist or secretary who says the physician is too busy to talk with the patient, and you have all the volatile ingredients for a costly nuisance malpractice suit, costly to all of us in premium dollars and time.

How can we improve this dilemma?

First, the patient and his family should be thoroughly prepared in advance when possible as to what procedure is anticipated along with a summary of possible complications. This will help differentiate between malpractice and maloccurrence.

Secondly, an explanation should be made afterward as to what was done and why in terms a layman can understand.

Thirdly, physicians must work with hospital administration and office personnel to make the patient and family realize that they are the most valuable part of the health care system and that our purpose is to help them in sickness and comfort them if results are poor. Hospital and office personnel are in an important position to tip us off if they sense that relations are becoming strained.

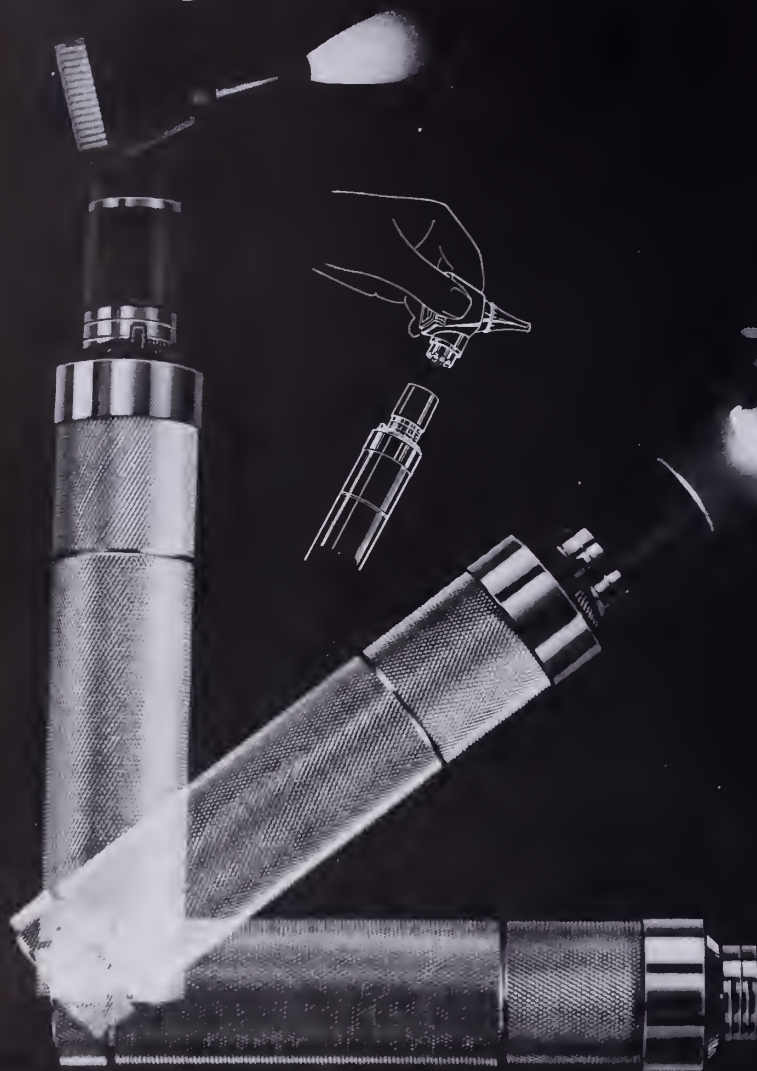
Good records are a good defense in protection against malpractice. Each of us should speak up publicly on the subject of malpractice problems because the end result of the problem is eventually passed on to the patient in the form of higher fees.



WILLIAM T. WRIGHT, M.D.

*Bill*

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Donnagel with paregoric equivalent  
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Each 30 ml. contains:

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Powdered opium, USP	24.0 mg.
(equivalent to paregoric 6 ml.)	
(warning: may be habit forming)	
Sodium benzoate	60.0 mg.
(preservative)	
Alcohol, 5%	

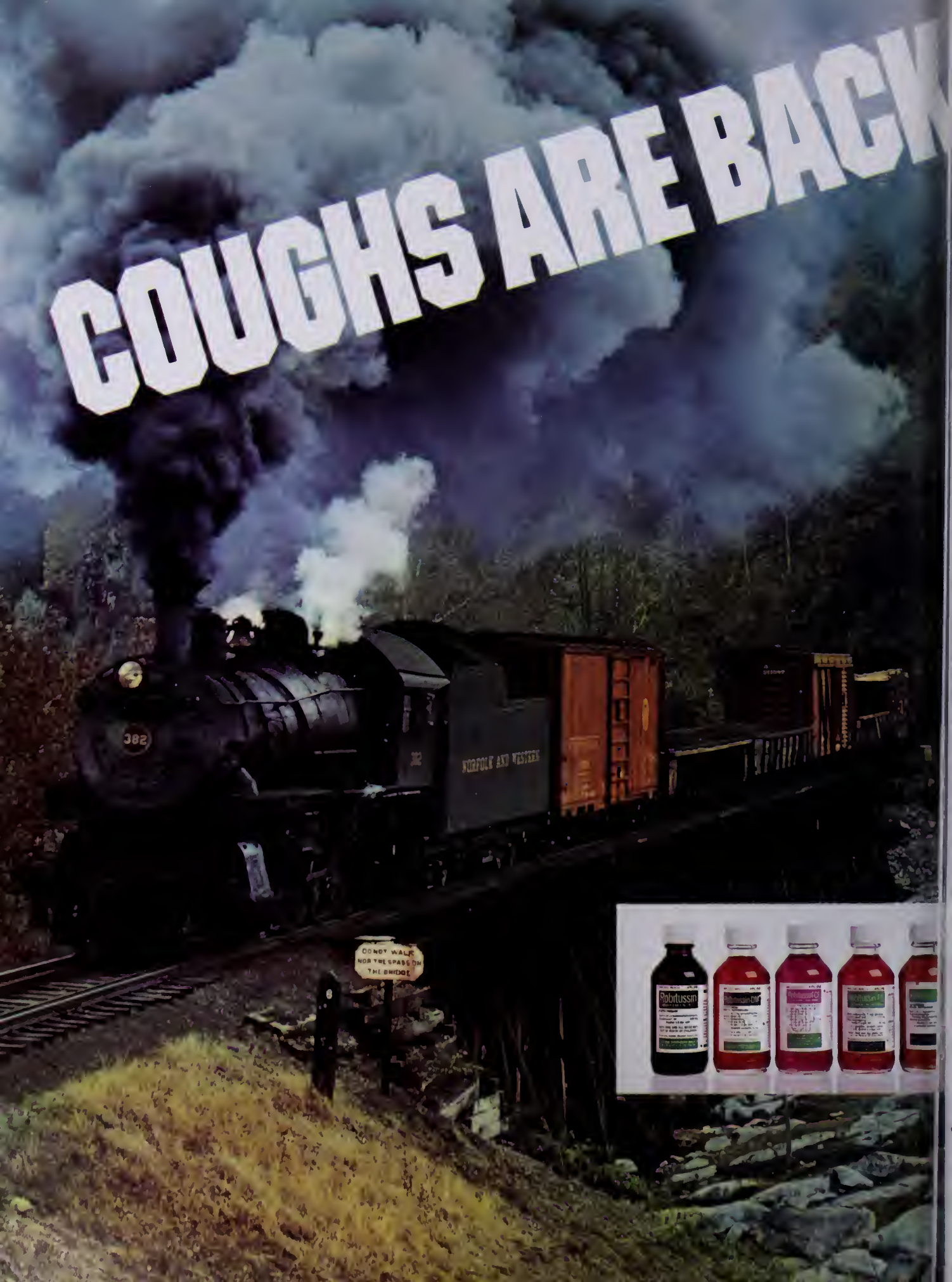
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The 5 members of the Robitussin® family all contain the expectorant, guaifenesin, to help clear the lower respiratory tract. Guaifenesin works systemically to help stimulate the output of lower respiratory tract fluid. This enhanced flow of less viscid secretions promotes ciliary action and makes thick, inspissated mucus less viscid and easier to raise. As a result, dry, unproductive coughs become more productive and less frequent.

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Non narcotic for 6-8-hour cough control

## **Robitussin-DM®**

Each 5 ml teaspoonful contains:  
Guaifenesin, NF ..... 100 mg  
Dextromethorphan  
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Alcohol, 1.4%

Decongests nasal passages and sinus  
openings as it helps relieve coughs

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Pseudoephedrine  
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Alcohol, 1.4%

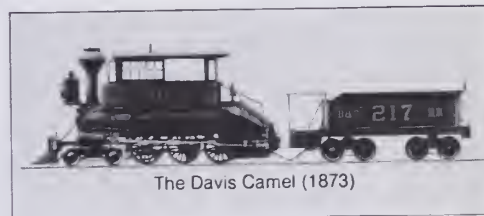
Decongestant action helps control cough and  
clear stuffy noses and sinuses. Non narcotic.

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All Robitussin formulations available on your  
Rx or Recommendation.

For many years Robins has spotlighted the expectorant action of the Robitussin cough formulations by featuring action photographs of steam engines like the one on the preceding page. In keeping with this tradition, last year the company commissioned a well-known illustrator to render full-color drawings of several classic locomotives . . . accurate to the minutest detail. Chances are you requested and received the first locomotive in this series, The William Mason, last winter. Now, the second one is available. (See below). To order your print suitable for framing, write "Robitussin Clear-Tract Engine #2" on your Rx pad and mail to "Vintage Locomotives," Dept. T4, A. H. Robins Company, 1407 Cummings Drive, Richmond, Va. 23220.



The Davis Camel (1873)

◀ OUR PHOTO: Norfolk & Western Branch Train No. 202 west bound near Alvarado, Va. (Oct., 1956). This line reaches the highest point of any railroad East of the Rockies (elevation 3,577 ft.) with a minimum grade of 3%. It crosses 108 bridges, some 700 ft. long! Photo by O. Winston Link.

**A-H-ROBINS**

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# National Swine Flu

*(Ed. Note: These are the critical days which will determine the success of this fall's influenza immunization campaign. The following concise presentation of P. L. 94-380—The National Swine Flu Immunization Program of 1976—is made to give each physician a complete review of the law's provisions, as many have requested this be done. The reader may wish to remove these pages for personal use.)*

## PROGRAM AUTHORIZATION

The Public Health Service Act would be amended to authorize the Secretary of HEW to establish, conduct, and support (by grant or contract) needed activities to carry out a national influenza immunization program until August 1, 1977. The program would be limited to:

## FLU IMMUNIZATION PROGRAM

- (A) The development of a safe and effective vaccine against the swine flu virus;
- (B) The preparation and procurement of sufficient quantities of vaccine for immunization of the U. S. population;
- (C) The making of grants to State health authorities to assist in meeting their costs in conducting or supporting immunization programs, and the furnishing to State health authorities of sufficient quantities of vaccine;
- (D) The furnishing to Federal health authorities of appropriate quantities of vaccine;
- (E) The conduct and support of personnel training for immunization programs, and the conduct and support of research on the flu, the vaccine, flu immunization and treatment, and the cost and effectiveness of immunization programs;

## INFORMED CONSENT

- (F) The development (in consultation with the National Commission for the Protection of Human Subjects of Biomedical and Behavioral Research within 2 weeks of enactment) and implementation of a written informed consent form and procedures (including information on rights and remedies) for assuring that vaccine risks and benefits are fully explained to individuals inoculated; and
- (G) Other activities as necessary.

The Secretary would make quarterly reports to the Congress on:

## QUARTERLY REPORTS

- (A) The current supply of the vaccine;
- (B) The number of persons inoculated with such vaccine since the last report, and the immune status of the population;
- (C) The amount of funds expended for the program and the costs of each program participant during the report period; and
- (D) The epidemiology of influenza in the U.S.

## MANUFACTURER PROFIT PROHIBITION

Any contract for U. S. procurement of swine flu vaccine from a manufacturer would be subject to renegotiation to eliminate any profit (Victoria flu vaccine profit would be allowed "not exceeding a reasonable profit"). The Secretary would develop criteria to provide for the above, specifying that any insurance premium amount included in the procurement contract and thereafter refunded in any way to the manufacturer would in turn be refunded to the U.S.

No additional funds would be authorized to be appropriated for the development, procurement or administration of vaccine (or training of personnel) under the swine flu program.

## LIABILITY STUDY

The Secretary would conduct, or provide for the conduct of, a study of the scope and extent of liability for personal injuries arising out of immunization programs and of alternative approaches to providing protection against such liability (including a compensation system) for personal injuries. Within one year, the Secretary would report to Congress the findings of the study and recommendations for appropriate legislation.

In order to:

- (A) assure an orderly procedure for the prompt and equitable handling of any claim for personal injury or death which may result from the administration of the vaccine; and



# Immunization Program of 1976

(B) achieve participation in the swine flu vaccine program of manufacturers, entities providing inoculations without charge (and in compliance with informed consent procedures), and medical and other health personnel providing or assisting in inoculations without charge for the vaccine or its administration (and in compliance with informed consent procedures), it would be the purpose of this bill to have all claims under the program asserted against the U.S. under the Federal Tort Claims Act.

The U.S. would be liable with respect to claims submitted after September 30, 1976 for personal injury or death resulting from the administration of vaccine under the program and based upon the act or omission of a program participant in the same manner and extent as the U.S. would be liable in any other action brought against it under the Federal Tort Claims Act, except that:

## FEDERAL LIABILITY

(A) the liability of the U.S. arising out of the act or omission of a program participant may be based on any theory of liability that would govern an action against a private individual, including negligence, strict liability in tort, and breach of warranty;

(B) the exceptions specified in the Federal Tort Claims Act (assault, battery, false imprisonment or arrest, libel, deceit, misrepresentation, contractual interference, slander, malicious prosecution, and abuse of process) would not apply in an action based upon the act or omission of a program participant; and

(C) if an action is brought within 2 years of the vaccine's administration and is dismissed because plaintiff did not file the required administrative claim, the plaintiff would have 30 days from the date of dismissal (or two years from the date the claim arose, whichever is later) to file the administrative claim.

"Program Participant" would mean the vaccine manufacturers and distributors who participate in the program, the public and private agencies or organizations that participate in the program without charge for the vaccine or its administration, and the medical and paramedical personnel who, without charge for the vaccine or its administration, administer or assist in administering inoculations with such vaccine (and who comply with informed consent procedures).

## "PROGRAM PARTICIPANT"

The remedy against the U.S. for personal injury or death resulting from the administration of flu vaccine would be exclusive of any other civil action or proceeding for such personal injury or death against any employee of the Government (including persons working temporarily, and without compensation) or program participant whose act or omission gave rise to the claim.

## EXCLUSIVE REMEDY

The Attorney General would defend any civil action or proceeding brought in any court against any Government employee or program participant (or liability insurer thereof) based upon a claim alleging personal injury or death resulting from administration of vaccine under the program. All process papers served for the claim would be furnished to the U.S. Attorney for the district where the civil action or proceeding is brought, to the Attorney General, and to the Secretary.

## ATTORNEY GENERAL

Upon the Attorney General's certification that a civil action or proceeding brought in any court against any Government employee or program participant is based upon a claim alleging personal injury or death resulting from administration of flu vaccine, such action or proceeding would be deemed an action against the U.S. under the Federal Tort Claims Act, and all references thereto. If action is brought in a U.S. district court, upon certification the U.S. would be substituted as the defendant.

Upon the Attorney General's certification, a civil action or proceeding commenced in a State court would be removed to the appropriate U.S. district court and be deemed an action brought against the U.S. The U.S. would be substituted as the defendant. Should a U.S. district court determine that the action or proceeding is not one to which this bill would apply the case would be remanded to the State court.

## ACTIONS IN STATE COURTS

## EFFECT ON OTHER LAWS

Where an action or proceeding is precluded because of the availability of a remedy from the U.S. under any other law, the action or proceeding would be dismissed, with the running of any limitation of time for commencing, or filing the proceedings for compensation suspended during the pendency of the action or proceeding hereunder.

## COOPERATION

A program participant would cooperate with the United States in the defense of a claim or suite based upon alleged acts or omissions of the program participant. If the program participant failed to cooperate, the U.S. district court would upon motion substitute such participant as the defendant in place of the U.S. and, upon motion, remand the suit to the court in which it was instituted.

## FEDERAL RECOVERY RIGHT

Should payment be made by the U.S. to any claimant bringing a claim, the U.S. would have the right to recover for that portion of the damages so awarded or paid, as well as costs of litigation resulting from failure of the participant to carry out contractual obligations or responsibilities under the program, or attributable to negligent conduct on the part of the program participant. The United States could maintain such action in the U.S. district court in which the program participant resides or has its principal place of business.

## REPORT

Within one year (and semi-annually thereafter) the Secretary would report to Congress on the settlement and litigation activities under the immunization program, including detailed information on claims for recovery connected with the program. ■

## DOCTORS WARNED OF RISK OF DROPPING LIABILITY INSURANCE

THE MEDICAL doctor who risks "going bare" — practicing without malpractice insurance — runs the risk of complete financial ruin, says a report in the Impact section of *American Medical News*.

A recent survey by Impact found that 35 percent of physician respondents said they are thinking of dropping malpractice coverage while 13 percent say they are currently without any malpractice insurance.

"Going bare" is a good idea "only for the very few tough minded individuals who can live with the possibility of losing everything they've acquired in a lifetime of practice, plus a good chunk of their future earnings," W. Fred Mangan, head of a Michigan management consultant firm, told the newspaper.

"If the doctor drops his malpractice insurance, the only way he can keep from losing his assets in a future malpractice action is not to have any assets to lose. He has to give them away," Mangan pointed out. "And the give-away must be complete and irrevocable, with the doctor retaining no control over the assets."

"Some physicians have considered putting all property in their wife's name, but the chances of losing everything through divorce are much greater than any risk from malpractice."

"If the doctor has no insurance and few assets to pay a malpractice judgment, the plaintiff's lawyer likely will obtain a court order attaching future earnings. Medicare, Medicaid, Blue Shield and insurance companies could be ordered to send checks to the plaintiff rather than the doctor, the doctor's bank accounts could be attached, and the plaintiff even could have someone sit in the doctor's office and collect all money paid by patients."

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# Letters to the Editor

## Doner Gets The Message

Would you please send me all available information about your public affairs project which is designed to place public service announcements on your state's television stations? For the past month or so we have been considering a similar project, although the exact type of announcement, including the subject, has not been determined.

I notice that you have decided to try to inform Alabama's public about the Heimlich Maneuver and that your project extended beyond public service spots to the placement of illustrated posters. If you could provide me with a sample of your poster and a brief overview of your project, I would appreciate it very much.

I might mention that this sounds like an excellent program, and I am sure it will be very successful.

Sincerely,  
Richard L. Hess  
Director of Communications  
Oklahoma State Medical Assoc.  
Oklahoma City, Okla.

## Come Fly With Me

It is with great delight that I give permission for you to publish my article "Come Fly With Me" in the October issue of your journal.

Many thanks for your help and I hope that the response you get from it is as good as what we have had here in Georgia. Jack Nolen, Gadsden, is a good friend of mine and appreciate your working with him on giving us a little publicity!

Please send me a copy of the issue in which it is published.

Most cordially,  
William J. Morton, M.D.  
Northside Urology Associates, P.A.  
Chamblee, Georgia

## Need Posters? We Have 'Em!

Please send one or more of the Heimlich Poster for use in my Health Occupations Education classroom and in the area vocational school where I teach. *The Alabama M.D.*, from which I learned about the poster distribution, mentioned this project as a "public relations effort" so I presume that there is no charge. Thank you.

Helen S. Wilcoxson, Teacher/Coordinator  
Health Occupations Education  
Burrell-Slater Area Vocational School  
Florence, Alabama ■

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# 1976 Party Platforms

## Republican National Committee's Platform On Health and Nutrition

Every American should have quality health care at an affordable price. The possibilities of an extended illness in a family is a frightening prospect, but, if it does happen, a person should at least be protected from having it wipe out his or her lifetime savings.

Catastrophic expenses incurred from major illnesses affect only a small percentage of Americans each year but for those people, the financial burden can be devastating. We support extension of catastrophic illness protection to all who cannot obtain it. We should build on our present private health insurance system to assure adequate protection for those who do not have it. Such an approach will eliminate the red tape and high bureaucratic costs inevitable in a comprehensive national program.

Americans should know that the Democratic Platform, which offers a government-operated and financed "comprehensive national health insurance system with universal and mandatory coverage," will increase federal government spending by about \$70 billion in its first full year. If such a plan were financed half by payroll taxes and half by general tax revenues, it would require a 5.05 percent payroll tax on the first \$17,000 of earned income and a 20 percent increase in the income taxes. We oppose this huge, new health insurance tax. Moreover, we do not believe that the federal government can effectively administer the Democratic cradle-to-grave proposal.

A comprehensive and coordinated effort should be immediately mounted to contain the rapid increase in health care costs by all available means, such as: development of healthier life styles through education to encourage moderation of smoking, drinking and other harmful habits; better planning; improved preventive care; better distribution of medical manpower; emphasis on out-of-hospital services; and elimination of wasteful duplication of medical resources.

The most effective, efficient and economical method to improve health care and extend its availability to all is to build on the present health delivery and insurance system with improved federal guidelines and standards to help control the cost of care, and to improve protection for all Americans and their dependent

We are troubled about excessive intrusions from Washington in the delivery of health care. We are troubled about infringing on the privacy that should exist between a patient and a physician, particularly in regard to the confidentiality of medical records.

Federal health programs should be consolidated, where possible, into a single grant to each state, thereby allowing much greater flexibility in setting local priorities. Our rural areas, for example, have different health care delivery needs than our cities. Federal laws and regulations should respect these differences and make it possible to respond differently to differing needs.

We need a comprehensive approach to the subject of mental health treatment and care. It should cover all aspects of the interrelationships between emotional illness and such specific disorders as alcoholism and drug addiction.





# Democratic Party Platform Relating To Health Care



In 1975, national health expenditures averaged \$547 per person - an almost 40 percent increase in four years. Inflation and recession have combined to erode the effectiveness of the Medicare and Medicaid programs.

An increasingly high proportion of health costs have been shifted back to the elderly. An increasing Republican emphasis on restricting eligibility and services is emasculating basic medical care for older citizens who cannot meet the rising costs of good health.

We need a comprehensive national health insurance system with universal and mandatory coverage. Such a national health insurance system should be financed by a combination of employer-employee shared payroll taxes and general tax revenues. Consideration should be given to developing a means of support for national health insurance that taxes all forms of economic income. We must achieve all that is practical while we strive for what is ideal, taking intelligent steps to make adequate health services a right for all our people. As resources permit, this system should not discriminate against the mentally ill.

Maximum personal interrelationships between patients and their physicians should be preserved. We should experiment with new forms of health care delivery to mold a national health policy that will meet our needs in a fiscally responsible manner.

We must shift our emphasis in both private and public health care away from hospitalization and acute-care services to preventive medicine and the early detection of the major cripples and killers of the American people. We further support increased federal aid to government laboratories as well as private institutions to seek the cure to heart disease, cancer, sickle cell anemia, paralysis from spinal cord injury, drug addiction and other such afflictions.

National health insurance must also bring about a more responsive consumer-oriented system of health care delivery. Incentives must be used to increase the number of primary health care providers, and shift emphasis away from limited application, technology-intensive programs. By reducing the barriers to primary preventive care, we can lower the need for costly hospitalization. Communities must be encouraged to avoid duplication of expensive technologies and meet the genuine needs of their populations. The development of community health centers must be resumed. We must develop new health careers and promote a better distribution of health care professionals, including the more efficient use of paramedics. All levels of government should concern themselves with increasing the number of doctors and paramedical personnel in the field of primary health care.

A further need is the comprehensive treatment of mental illness, including the development of Community Mental Health Centers that provide comprehensive social services not only to alleviate, but to prevent mental stresses resulting from social isolation and economic dislocation. Of particular importance is improved access to the health care system by underserved population groups.

We must have national health insurance with strong built-in cost and quality controls. Rates for institutional care and physicians' services should be set in advance, prospectively. Alternative approaches to health care delivery, based on prepayment financing, should be encouraged and developed.

Americans are currently spending \$133 billion for health care - 8.3% of our Gross National Product. A return to full employment and the maintenance thereafter of stable economic growth will permit the orderly and progressive development of a comprehensive national health insurance program which is federally financed. Savings will result from the removal of inefficiency and waste in the current multiple public and private insurance programs and the structural integration of the delivery system to eliminate duplication and waste. The cost of such a program need not exceed the share of the GNP this nation currently expends on health care; but the resulting improvement of health service would represent a major improvement in the quality of life enjoyed by Americans at all economic levels.

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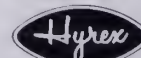
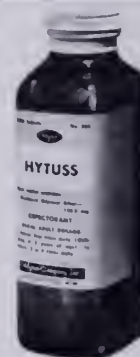
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**Composition:** Each sugar-free compressed tablet contains glyceryl guaiacolate 100mg. **Action and Use:** This preparation utilizes the effective expectorant action of glyceryl guaiacolate which significantly stimulates the secretion of respiratory tract fluid. The increased flow of less viscid fluid favors expectoration and has a demulcent effect on the tracheobronchial mucosa. The primary usefulness of Hytuss Tabs is to promote the change from a dry, unproductive cough to a productive cough. Hytuss is therefore useful in treating coughs due to the common cold, bronchitis, laryngitis, tracheitis, pharyngitis, influenza and the measles. The expectorant action of Hytuss may also provide symptomatic relief in some chronic respiratory disorders when the patient experiences spasms of dry nonproductive coughing. **Precautions:** Extremely large amounts may cause nausea and vomiting. **Administration and Dosage:** Adults—1 tablet four times daily. Children—6 to 12 years of age; ½ tablet 3 or 4 times daily. **HOW SUPPLIED:** White, scored, sugar-free, tablet in bottles of 100 - 1,000 - 5,000. **Product Identification Mark:** Hy. **Literature Available:** On request. Available through all drug wholesalers.



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- **Relief of Nausea and Vomiting**—Antivert/25 can relieve the nausea and vomiting often associated with vertigo\*.
- **Dosage for Vertigo\***—The usual adult dosage for Antivert/25 is one tablet t.i.d.

#### BRIEF SUMMARY OF PRESCRIBING INFORMATION

**\*INDICATIONS** Based on a review of this drug by the National Academy of Sciences—National Research Council and/or other information, FDA has classified the indications as follows:

**Effective:** Management of nausea and vomiting and dizziness associated with motion sickness.

**Possibly Effective:** Management of vertigo associated with diseases affecting the vestibular system.

Final classification of the less than effective indications requires further investigation.

**CONTRAINDICATIONS.** Administration of Antivert (meclizine HCl) during pregnancy or to women who may become pregnant is contraindicated in view of the teratogenic effect of the drug in rats.

The administration of meclizine to pregnant rats during the 12-15 day of gestation has produced cleft palate in the offspring. Limited studies using doses of over 100 mg./kg./day in rabbits and 10 mg./kg./day in pigs and monkeys did not show cleft palate. Congeners of meclizine have caused cleft palate in species other than the rat.

Meclizine HCl is contraindicated in individuals who have shown a previous hypersensitivity to it.

**WARNINGS.** Since drowsiness may, on occasion, occur with use of this drug, patients should be warned of this possibility and cautioned against driving a car or operating dangerous machinery.

**Usage in Children:** Clinical studies establishing safety and effectiveness in children have not been done; therefore, usage is not recommended in the pediatric age group.


**Usage in Pregnancy:** See "Contraindications."

**ADVERSE REACTIONS.** Drowsiness, dry mouth and, on rare occasions, blurred vision have been reported.

More detailed professional information available on request.

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**RECENT CHANGES**

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# THERE ARE A LOT OF PEOPLE GETTING BETWEEN YOU AND YOUR PATIENT.

Medicine today is in the spotlight, subjected to all kinds of scrutiny. Your control over patient therapy is being monitored, judged and occasionally abrogated, sometimes by unknown third parties.

The worry is that in the wake of this focus, the relationship between you and your patient will be weakened, without offsetting benefits. Consider three examples:

**Drug substitution** In most states, pharmacy laws, regulations or professional custom stipulate that your non-generic prescriptions be filled with the precise products you prescribe. But in the last five years, a dozen or more State laws have been changed, permitting the pharmacist in most cases to select a product of the same generic drug to fill any prescription.

Ironically, this dilution of physician control has taken place against a background of growing evidence that purportedly equivalent drug products may be inequivalent, since neither present drug standards nor their enforcement are optimal. In fact, the FDA itself says it has not enforced the same standards for hundreds of "follow-on" products that it had applied to the original NDA approvals. Thus physician control over patient therapy is being eroded with a risk that patients may be exposed to drugs of uncertain quality.

The major advertised claim for substitution is reduced prescription prices for consumers. Yet no documentation of any significant savings has been produced.

**MAC** Maximum Allowable Cost, MAC for short, is a Federal regulation designed to cut the Government's drug bill by setting price ceilings for drugs dispensed to Medicare and Medicaid patients. Unless the prescriber certifies on the prescription that a particular product is medically necessary, the Government intends to pay only for the cost of the lowest-priced, purportedly-equivalent,

generally-available product. The effect of the program may be that elderly and indigent patients will be restricted to products which someone in Washington believes are priced right. Practicing doctors will have little to say about administration of the program, since Government will have absolute authority to make its choices stick.

**The drug lag** The future of drug and device research depends upon a scientific and regulatory environment that encourages therapeutic innovations. The American pharmaceutical industry annually is spending more than \$1 billion of its own funds and evaluating more than 1,200 investigational compounds in clinical research. Disease targets include cancer, atherosclerosis, viruses and central nervous system disorders, among others. But there is a major barrier to the flow of new drugs to your patients: The cost of the research is more than ten times what it was, per product, in 1962; and whereas governmental clearance of new drug applications took six months then, it commonly consumes two years now.

The FDA needs adequate time, of course, to consider data. But it is equally clear that the present approval process contributes to needless delay of needed therapy. That's why the increased efficiency of the drug approval process is vital to all our futures.

If these issues concern you, we suggest that you make your voice heard—among your colleagues and your representatives in State legislatures and in Washington.

It could make a difference in your practice tomorrow.



Pharmaceutical Manufacturers Association  
1155 Fifteenth Street, N.W., Washington, D.C. 20005

# Alabama's First Governor

GOV. WILLIAM WYATT BIBB, M.D.



Born—October 2, 1781, in Prince Edward County, Virginia. Died—Elmore County, then a part of Autauga County, Alabama, on July 10, 1820.

WILLIAM WYATT BIBB was the eldest son of Capt. William Bibb, of Virginia, who had served as an officer in the American Revolutionary War and afterwards as a member of the Virginia Legislature. His mother was Sally S. Wyatt, born in New Kent County, Virginia, and a descendant from Sir Thomas Wyatt, of England, who was executed as a protestant leader during the persecutions of Queen Mary's bloody reign. She was also a descendant of Francis Wyatt, colonial governor of Virginia. In her veins flowed the blood of still another Sir Thomas Wyatt, famous poet and diplomat of the court of Henry VIII.

William and Sally were married in 1779 and moved in 1789 to the Broad River Settlement (Savannah River) of Georgia, a region which supplied so many of the early leaders of Alabama. In 1796, William Bibb died, leaving his widow with eight children and an estate encumbered with debts.

One of their sons, William Wyatt, was sent to study under the famous Methodist preacher, Hope Hull, who was at that time superintendent of an academy in Washington, Wilkes County, Georgia. At the age of 16, he was sent to William & Mary College in Virginia for two years.

IN 1799, William Wyatt returned home and began the study of medicine in the office of a Dr. Murray, of Augusta, Georgia. Shortly afterwards, he left to enter the University of Pennsylvania Medical School at Philadelphia, then the finest medical school in the nation. He was graduated at the age of 21 (in 1801) and immediately began the practice of his profession in the flourishing town of Petersburg, Georgia, where he soon commanded a lucrative practice.

Shortly after he began his practice, Dr. Bibb was married to Miss Mary Freeman, of Wilkes County. To them were born four children, but only two survived infancy. Dr. Bibb was keenly interested in his practice of medicine but even more so in the political involvement of his day. His neighbors drafted him for the call into public life and in 1803, he closed his office to enter politics.

After four years in the Georgia Legislature, Dr. Bibb was elected to the lower house of Congress and served continuously from January 26, 1807, until March 3,

1813. He was a fearless and able advocate of the War of 1812 and a conscientious supporter of the administration of President Madison. In 1813, the Georgia Legislature appointed him to fill the vacancy caused by the resignation of William H. Crawford in the U. S. Senate.

AFTER SERVING one term, he was defeated for re-election by George M. Troup. One of the issues in the election was a bill passed by Congress authorizing the payment of \$1,500 annually to members of both houses. Senators and representatives were loudly denounced and public indignation ran so high in the State of Georgia that Bibb considered it a criticism of him personally and he resigned his seat in November, 1816, before the expiration of his term.

Bibb came to Coosada in Elmore County (then Autauga County) in 1816 and established a landed estate. President Monroe sought to soften the defeat of his senatorial friend by naming Bibb Territorial Governor of Alabama, which was then being created out of part of the original Mississippi Territory by an act of Congress on March 3, 1817. Governor Bibb's Commission was as follows:

JAMES MONROE

President of the United States of America

*To all who shall see these Presents, Greeting:*

*Know Ye, That reposing special Trust and Confidence in the Patriotism, Integrity and Abilities of William W. Bibb, of the State of Georgia, I do appoint him Governor in and over the Alabama Territory, and to authorize and empower him to execute and fulfill the duties of that office according to law; and to have and to hold the said office with all the powers, privileges and emoluments to the same of right appertaining until the end of the next session of the Senate of the United States, and no longer, unless the President of the United States for the time being should be pleased sooner to revoke and determine this commission.*

*In testimony whereof, I have caused these letters to be made patent, and the Seal of the United States to be hereunto affixed.*

*Given under my hand at the city of Washington the twenty-fifth day of September, A.D., 1817, and of the Independence of the United States of America the forty-second.*

*By the President:*

*John Quincy Adams, Secretary of State*





## HIGHLIGHTS OF AMERICAN MEDICINE

### MARY FREEMAN BIBB, Wife of Gov. Bibb

It was not required by law that the governor reside at the seat of government, and since he had been invested with the authority to appoint a Secretary of the Territory who was to reside at the capital and act in absence of the governor, Bibb appointed to this office Henry Hitchcock, who later became Chief Justice of the Alabama Supreme Court. The capital of the Alabama Territory by President Monroe's designation was located at St. Stephens in Washington County. Governor Bibb made frequent trips to St. Stephens from his country home in order to consult with Secretary Hitchcock and to keep in close touch with the progress of the Territorial Legislature.

Bibb continued to preside over the destinies of the Alabama Territory until the summer of 1819. In anticipation of the admission of Alabama to statehood, an election was held for the purpose of choosing a governor and members of the Legislature. He was opposed in the governor's race by Marmaduke Williams, but won over his opponent by a majority of 1,200 votes.

Dr. William Wyatt Bibb was inaugurated as the first governor of the State of Alabama before both houses of the Legislature and in the presence of a large assembly of citizens. In his inaugural address, he congratulated the people of the state upon the abundant crops which it had pleased the Almighty to afford them, the health which they had universally enjoyed and the fortunate termination of the convention which had resulted in an excellent constitution.

He brought to the attention of the Legislature the liberal donations of public lands by Congress and emphasized that the proceeds from the sixteenth section in every township was to be reserved for the use of schools. He also reported that the permanent capital of the state was to be located at the town of Cahaba, where streets had been laid off, lots sold and the erection of a temporary statehouse was contracted.

A COMMITTEE of three had been appointed at the first meeting of the Territorial Legislature to select a suitable site for the permanent seat of government and Governor Bibb reported the selection of the location for the capital at the junction of the Alabama and Cahaba Rivers. The place selected was convenient for those who lived along the rivers of south Alabama but was far removed from the Tennessee Valley and naturally opposed by men from that section. He stated in his inaugural address that he was anxious to pro-

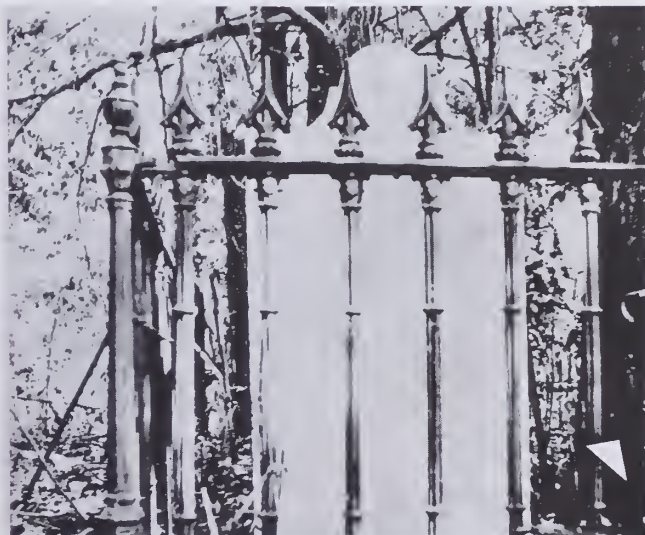
mote the general interest of the state and that the location of Cahaba approached the geographic center.

No sooner had the government of Alabama been organized than the citizens of the state were informed of the death of their first governor. During the summer of 1820, the governor was thrown from his horse which had become frightened during a thunderstorm and Bibb sustained injuries from which he never recovered. The end came rapidly and on July 10, 1820, this distinguished southerner who was a physician, legislator, congressman, United States senator and governor died in his 40th year at his home in the present Elmore County.

In all of his political work, which was of utmost importance for the firm establishment of state and local government in Alabama, Governor Bibb worked with the utmost energy and foresight. His background of southern politics and experience with the problems of the Alabama Territory helped form the paths of early statehood.

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Tomb of Governor Bibb in old family burial ground near Coosada, Elmore County.

# **Come Fly With Me**

**By WILLIAM J. MORTON, M.D.**  
**President, Dixie Region Flying Physician's**  
**Association; Instrument Rated Pilot;**  
**Practicing Urologist, Embry Hills Medical Center,**  
**3646-F Chamblee-Tucker Road, Chamblee,**  
**Georgia 30341.**

BECAUSE OF the busy schedule in our daily routine and in constantly meeting the high standards of our profession, there should be and in fact must be a pursuit of other pleasures as a vent to relieve pressures. We all belong to organizations mostly involved in our sphere of medicine, but I would like to share with you an organization, international in scope, varied in membership, and combining two of our finest inspirations—medicine and aviation. For those of you who have not experienced the joy of piloting your own plane nor been a passenger in a small airplane is to miss out on one of life's most exhilarating and enjoyable moments. To experience the thrill of soaring above the earth, to behold not only man's contribution, but also nature's bounty and also to enlarge one's knowledge learning aerodynamics, navigation, and radio-communication is another means of growth and widening of experience. Rather than proselytize the reader to flying, I would like to tell you about the Flying Physicians Association.

This organization is composed not only of physician-pilots, but also any physician who may have only a casual interest in aviation. Open to medical students, interns and residents as well, the organization is a forum for expanding one's medical and aviation knowledge. The aim of the Flying Physicians Association is to promote general aviation safety, both through example and education. We also strive to advance pilot proficiency and physician knowledge, to encourage aviation interest in our youths, and to promote aviation awareness within the ranks of the medical profession. Besides having members in every state, our members are also located in Canada, Africa, Australia, England, Israel, Puerto Rico, Colombia, South America, West Germany, and the West Indies.

FOUNDED IN 1955, with its first regular meeting held in conjunction with the A.M.A., the membership has increased to over 2,400. Besides its own state, regional, and national meetings, the Flying Physicians Association also meets at the same time as the American College of Surgeons, the American Association of General Practitioners, Southern Medical Association, the American Medical Association, and the Aerospace Medical Association. Obviously the high point of the organization is the National Flying Physicians annual meeting held in the summer of each year. Last year we met for one week at Lake Geneva, Wisconsin; this year we assemble at Toronto, Canada (July 25-30) and next year we meet at Sun Valley, Idaho. The National meeting not only has topics of medical interest and special aviation speakers, but last summer we were shown a film made by the physician who covered the joint U.S.-Soviet space shot for NASA. We were the third organization to see this movie after President Ford and the National Press Association. There are also aviation manufacturers demonstrating their products from navigation and communication equipment to oxygen systems as well as different type of aircraft. Representatives of the Federal Aviation Administration as well as the major commercial airlines usually speak on some pertinent subject. Of course, there is also the usual complement of medical topics and since it is not an organization comprised of one particular sphere of medicine, the topics vary from orthopedics to general practice, survival medicine and ophthalmology. The meetings actually expose the specialist to what's going on in the other aspects of medicine.

Of course, the social aspects are not to be denied. You'll meet interesting people. Swapping scary airplane tales (hangar flying) take precedent over everyone's favorite horror show in his practice. I am always amazed as to how many physicians not only are accomplished pilots, but also how involved we all get in flying.

**THE SITES** for the meetings are carefully chosen—not only to encourage members to attend, but with members flying to the locations, they're usually in more unusual places. At our last regional meeting held at Jekyll Island this past March with 60 registrants,





there were over 45 airplanes present. Of course, not everyone owns his own plane and many members are not pilots, but most members do fly in private planes to the meetings.

While the Flying Physicians Association is primarily an educational organization, its members do engage in a variety of other activities. Perhaps most notable among these are the Association's emergency mobilization plan. The plan is designed to provide outside medical aid and assistance in the event of a major disaster. In such an event the members—at their own expense—are formally organized and prepared to provide the medical supplies and personnel that would be urgently needed and in all likelihood not available at the disaster site. This is a task uniquely suited to us as physicians. We have readily accessible to us such supplies and personnel, and our aircraft are capable of landing in areas completely unsuitable for commercial and/or military use. Each year the various state chapters stage mock disaster flights. Often these are held in cooperation with other agencies with similar programs. The FPA disaster program in no way conflicts with those of the Civil Air Patrol, or other organized groups with similar plans.

In addition to the National Convention and other regional and state meetings, the Association also sponsors one or two group flights. The first of these was held when a group of members toured Alaska in 49 airplanes. A tour of Hawaii was conducted subsequent to that. There have also been many group flights to Mexico, maritime provinces of Canada, and one each to the Caribbean, Guatemala, and Colombia, South America.

THE ASSOCIATION regularly distributes without charge two publications to the membership. "The Flying Physician" is a magazine issued quarterly and devoted mainly to papers and articles concerning flight safety and medical reports related to aviation. It also carries news of the activities of various state chapters. "The Bulletin" is a monthly newsletter containing information of a much more immediate nature for the general membership. By the way not only are the annual dues extremely low, registration charges at the meetings are always minimal!

Of the several committees of the Association, none is more important than the Safety Committee. Ever since the FPA was founded, members of this committee have been extremely active in a variety of ways, producing audiovisual aids, stressing the importance of adequate and continued instrument training by both medical and nonmedical pilots, and co-operating with state and local government agencies.

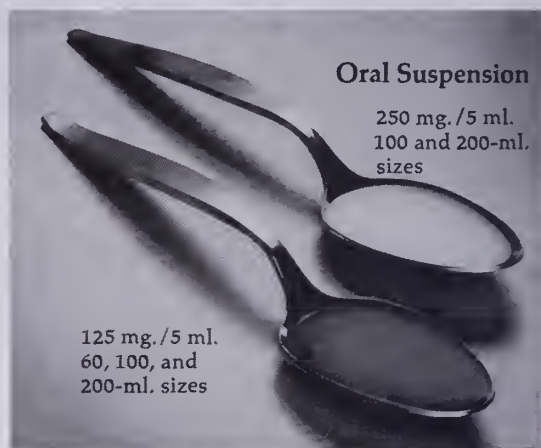
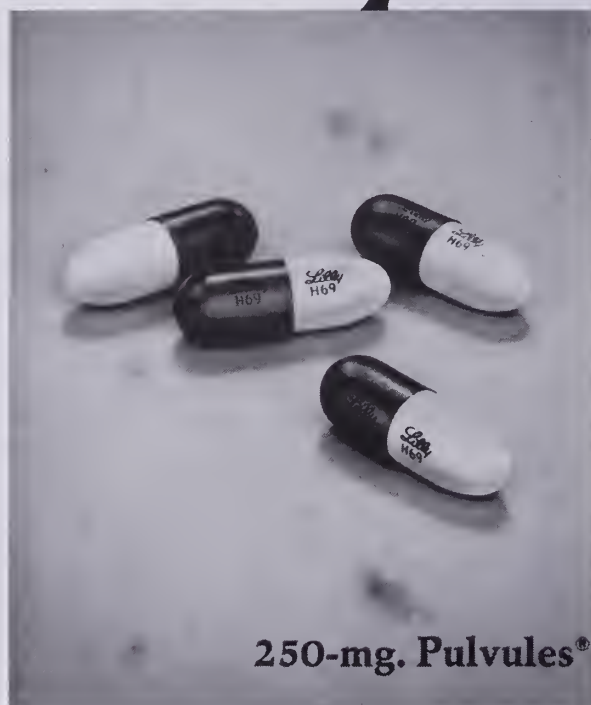
Members of the Flying Physicians Association do not want publicity. Too often the public is given a distorted picture of the physician flying his own airplane. What the FPA wants most of all is for people—not only other physicians but also the public at large—to realize that being a member of the Flying Physicians is a privilege as well as a tremendous responsibility. The organization is a complex entity made up of fun plus learning painstaking care in piloting a plane. All this plus research and an incessant interest in the latest in aerospace medicine, flight techniques and scientific progress make for a fascinating group.

But this is a brief summary of what the Flying Physicians Association is about. I encourage curiosity and I invite your participation. As we say here in Dixie, "Ya'll come, heah!" ■

**"For those of you who have not experienced the joy of piloting your own plane nor been a passenger in a small airplane is to miss out on one of life's most exhilarating and enjoyable moments...to experience the thrill of soaring above the earth and behold nature's bounty..."**

*Reprinted from pages 291 - 292 of the July, 1976, Journal of the Medical Association of Georgia. Copyright, 1976, by the Medical Association of Georgia.*

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# Neck Masses: Diagnosis & Treatment (The Occult Primary Tumor)

Robert L. Baldwin, M.D.\*

ONE of the most challenging diagnostic problems physicians are faced with today is the patient who presents with a lump in the neck. Diagnosis, however, which is the major problem, is often ignored and immediate biopsy is performed. If the mass is benign, no real harm is done and a cure may be effected. If the mass is malignant, however, the patient may suffer irreparable harm. Therefore, familiarity with methods of diagnosis must be a part of every physician's and surgeon's diagnostic armamentarium.

In dealing with this problem, there is a need for personal experience as well as a knowledge of the experience of others. The main problem to be solved, in most instances, is the separation of benign from malignant masses in the neck so that the proper treatment may be instituted. Benign masses require only local excision in most instances. Malignant masses, however, aside from carcinoma of the thyroid, are usually metastatic from a primary site above the clavicle; thus, both the primary and metastatic sites must be treated.

The diagnostic effort, therefore, should be concentrated above the clavicle. Biopsy, either of the primary or of the metastatic site, should be the final rather than the initial diagnostic maneuver in a series of studies ordered. With the establishment of the correct diagnosis, the treatment is usually obvious.

## Anatomy and Examination

In dealing with this problem, a thorough knowledge of the anatomical relationships of the head and neck region is essential. There are many excellent textbooks dealing with the anatomy of the head and neck, and a detailed discussion of this area will not be undertaken in this manuscript.<sup>1,2</sup> Several points of anatomical interest do warrant our attention here, however.

Basically, the neck is divided into two unequal triangles by the sternocleidomastoid muscle. The posterior triangle is formed by the clavicle inferiorly, the anterior border of the trapezius muscle posteriorly, and the posterior border of the sternocleidomastoid muscle anteriorly. The anterior triangle is formed by the anterior border of the sternocleidomastoid muscle laterally, the midline of the neck medially, and mandible superiorly. The majority of metastatic disease encountered will occur in the anterior triangle.

\*Clinical Assistant Professor, Department of Otolaryngology, University of Alabama Hospitals & Clinics, Birmingham, Alabama. Attending Staff Surgeon, Head and Neck Surgical Oncology Service, Birmingham Veterans' Hospital.

Table 1

### LYMPH NODE GROUPS

Occipital	Facial
Mastoid	Sublingual
Parotid	Retropharyngeal
Submaxillary	Lateral cervical
Submental	Anterior cervical

There are ten basic groups of lymph nodes in the confines of the neck; one-half of these are located in the anterior triangle (see Table 1). The lymphatic drainage of the neck, when understood, generally will direct one's attention toward certain primary sites from which metastatic disease may occur. Thus, a thorough knowledge of the lymphatic drainage of the head and neck region is essential if one is to care for patients presenting with a mass in the neck.

Examination of the neck should begin with known landmarks and proceed in a systematic way to search for abnormalities. All the lymph node groups in the neck can be palpated routinely with the exception of the sublingual and retropharyngeal nodes. Some feel that even the retropharyngeal nodes, when enlarged, may be palpated by sliding the examining finger up the lateral wall of the nasopharynx.

In examining the neck, occasionally normal structures are mistaken for abnormal masses. A few of the more commonly mistaken structures giving some difficulty in diagnosis are mentioned below:

1. **Carotid bifurcation** — this is a problem especially in older individuals with some degree of atherosclerosis and increased tortuosity of the vessel. It is usually distinguishable from a mass, however, by its location and pulsatile (expansile) nature. The important entity to differentiate it from, of course, is the carotid body tumor. A lymph node is not pulsatile (and if so, not in an expansile fashion), and is more oblong in structure.
2. **Greater cornu of the hyoid bone** — this structure is present in its normal location in the upper neck and can be readily palpated when the opposite greater cornu of the bone is pressed toward the midline—a landmark for location of the carotid bifurcation.
3. **Transverse process of sixth cervical vertebrae** (Chassaignac's tubercle) — this represents the lateral aspect of the sixth cervical vertebrae which can be palpated

as a prominence in the lateral aspect of the lower neck, as can the first cervical vertebrae in the upper neck behind the angle of the mandible. This may be very prominent in individuals with thoracic scoliosis.

4. **Omohyoid muscle** — the posterior belly of the omohyoid muscle can masquerade as a mass in the superclavicular fossa. It is usually oblong and can be felt to contract on swallowing.

As a corollary to the fact that normal structures in the neck such as we have mentioned above can be mistaken for abnormal masses, abnormal masses can also be mistaken for normal structures to an examiner who is unfamiliar with palpation of the neck.

In every patient with a mass in the neck, a complete examination of the ear, nose, throat, nasopharynx, larynx and neck should be accomplished in an orderly fashion. A systematic routine for examining the neck should be established and followed. A good method of examining the neck is to sit facing the patient.

First, the collar should be loosened, ties and necklaces removed, and the neck bared to beneath the shoulder. Examine by inspection the neck from an anterior-posterior and lateral view, extended and on swallowing. Flex the neck to one side, relaxing the sternocleidomastoid muscle on that side. This enables you to palpate bimanually the entire deep cervical chain. By actually picking up the muscle and its underlying nodes between the thumb and examining fingers, enlargements are readily felt.

Now, flex the neck to the opposite side, tensing the scalene, levator scapulae and spleneous capitis muscles; this enables palpation, with the flat of the middle three fingers, of the posterior cervical chain which rests on this musculature. Then, palpate the supraclavicular fossa. Proceed to palpate the paratoid, submaxillary and submental node bearing areas. Then the thyroid, midline and paratracheal nodes are palpated. Lastly, bimanually palpate the submaxillary gland and associated nodes. If indicated, palpate the retropharyngeal node bearing area.

Helpful many times in the examination of the head and neck are the newer fiberoptic nasopharyngoscopes and laryngoscopes. I routinely use a Hopkins fiberoptic scope in any patient with a suspected head and neck malignancy to examine the nasopharynx, hypopharynx and larynx, as well as the conventional equipment used for this purpose.

### Classification of Neck Masses

Many different classifications of neck masses have been published and popularized. There are indeed many different ways in which one can classify neck masses. The classification which one uses should contain most of the likely possibilities, as well as some of the statistical possibilities which are seen in the various reported patient populations. A classification embodying the most common tumor for a specific age group is helpful. One may also differentiate between benign and malignant, inflammatory, congenital lesions, etc. Malignancies may be further classified as primary or metastatic. A very useful classification which is helpful to many is to differentiate between midline and lateral masses (see Table 2).

Before proceeding to discuss malignant neoplasms and the problem of the occult primary tumor, I would now like

Table 2

### CLASSIFICATION OF NECK MASSES

#### A. Midline Masses

1. Thyroglossal duct/cyst
2. Dermoid cyst/tumor
3. Pyramidal lobe or thyroid/isthmus nodule
4. Lingual thyroid
5. Cervical lymph nodes
  - a. Inflammatory
  - b. Neoplastic

#### B. Lateral Masses

1. Thyroid
2. Branchial cleft cyst and sinus
3. Salivary gland disease
4. Primary tumors (rare)
5. Cervical lymph nodes
  - a. Inflammatory
    1. bacterial
    2. viral
    3. fungal/tuberculosis
  - b. Neoplastic
    1. leukemia
    2. lymphoma
    3. metastatic carcinoma

to discuss some of the more common benign masses which one encounters in the neck region.

**Thyroglossal Duct Cyst** — These develop in relation to the thyroid gland and the base of the tongue. In fetal life the primordium of the thyroid gland descends from the foramen caecum into the neck. As this occurs, a tract is formed which is normally obliterated before birth. A tract may persist, however, and give rise to cystic swelling or enlargement of thyroid remnants within the tract itself. These may present clinically anywhere from the base of the tongue to the suprasternal notch. The lining of the cyst is usually respiratory epithelium (may be squamous, however) and is devoid of lymphoid tissue.

These masses are more commonly seen in children. The first manifestation is usually an asymptomatic swelling in the midline of the neck at or around the level of the hyoid bone. Acute infection or previous infection may give a solid feeling to palpation because of secondary fibrosis or enduration. The neck mass moves on swallowing or protrusion of the tongue. A draining cutaneous sinus may be present.

Diagnosis may be made by history and physical examination. The treatment is surgical by means of Sistrunk procedure (removal of the cyst, its tract and the central portion of hyoid bone). It is imperative that preoperative thyroid function studies and RAI scan be performed. Cases of undescended thyroid gland are reported and one could



remove all functioning thyroid tissue unknowingly. With appropriate surgical treatment of the thyroglossal duct cyst, the recurrent rate is zero.

**Hyperplasia of the Pyramidal Lobe** — This is a rarely encountered disorder in children before the teens. It usually develops in older people following a subtotal thyroidectomy. What actually happens is that the remaining portion of thyroid gland or pyramidal lobe hypertrophies to compensate for that portion removed. This is easily mistaken for a thyroglossal duct cyst, as it has the same consistency, is located in the same area, and moves on swallowing. The history is important in aiding differentiation. The thyroid scan may be of some benefit; in most instances, the thyroglossal duct cyst does not contain functioning thyroid tissue, whereas the hyperplastic nodule or pyramidal lobe tissue would contain active thyroid tissue.

The ultimate differential point here is solved by surgical excision of the mass with frozen section.

**Lingual Thyroid** — When the thyroid anlage fails to descend from the base of the tongue in fetal life, lingual thyroid will result. This mass is usually found between the epiglottis and circumvallate papillae, many times in association with the foramen caecum. These appear as a reddish-blue mass in the base of the tongue in the midline. They are many times asymptomatic. If symptoms of dysphagia, respiratory obstruction or chronic irritation are present, removal is indicated. As with thyroglossal duct cyst, pre-operative thyroid function and thyroid scan should be performed, as lingual thyroid may represent the patient's only functioning thyroid tissue.

**Tuberculous Lymphadenitis** — Characteristically, this is a disease of childhood and infancy. It is seldom seen today but is not absent entirely in lower socioeconomic groups. It is caused by an infection with bovine tuberculosis. The transmission is from infected, contaminated milk products. It is thought that the portal of entry is in the tonsillar area from where the infection spreads via lymphatics to involve nodes in the neck. Nodal breakdown may occur and a draining cutaneous sinus may be present. Pulmonary tuberculosis is not frequently found in association with tuberculous lymphadenitis.

The treatment of this disease is appropriate antituberculosis therapy followed in several months by excision of the involved nodes, which are often matted, and the draining sinus.

**Branchial Cleft Cyst** — These are secondary to persistence of branchial cleft system remnants into adult life. Although the exact mechanism of formation is not certain, it is thought that the cyst and fistulas develop from remnants of the branchial arch system with failure of fusion or burying of the cell rests of the branchial grooves.

**First Branchial Cleft Cyst** — These cysts present as a chronic discharging sinus high in the neck, as well as a draining external ear canal. There is no associated middle ear disease present in most instances. The neck fistula opens beneath the body of the mandible; the opening in the external auditory canal is at the bony cartilaginous junction. These are not commonly seen.

Treatment is complete excision. Injection of the cyst

tract with dye will help delineate it radiographically. Injection of the cyst tract with methylene blue may be helpful in identifying cyst tract surgically.

**Second Branchial Cleft Cyst** — 95% of branchial cleft defects are formed at the second pouch or groove. The second cleft has the greatest depth and the largest normal persistence in the fetal life, probably accounting for its more common occurrence. These are usually recognizable by 30 years of age. They are usually unilateral, but bilaterality occurs in approximately 2% of the cases.

Fistulas are less common than cysts and have an external as well as an internal opening. The external opening is usually between the hyoid bone and suprasternal notch. From here the tract goes between the internal and external carotid, over the 12th cranial nerve, beneath the posterior belly of the digastric muscle, over the 9th cranial nerve, beneath the styloglossus muscle, over the stylopharyngeous, up the posterior aspect of the tonsil to the posterior palatine arch, ending in the upper one-half of the posterior tonsillar pillar, supratonsillar fossa, or through the tonsil itself.

Treatment is complete surgical excision of the fistula and the cyst.

**Third Branchial Cleft Cyst** — These are very rare and occur in the region of the laryngeal ventricle. The external opening is usually anterior to the lower one-half of the sternocleidomastoid muscle. It passes between the common carotid artery and vagus nerve to open into the pyriform sinus.

**Fourth Branchial Cleft Cyst & Sinus** — These are really only a theoretical possibility and no reported case is found in the literature.

Other benign neck masses include cystic hygroma, neurogenic tumors and carotid body tumors. Primary neoplasms of the neck are unusual. Instead of attempting to discuss any more less-common benign disorders, we will now concentrate primarily on neck masses caused by metastatic cancer in cervical lymph nodes associated with an occult or unknown primary site of cancer.

#### **Occult Primary Tumors With Cervical Metastases**

In dealing with this problem, as we alluded to earlier, one must have a steadfast, systematic diagnostic protocol in searching for the primary lesion. It is well to assume that practically all neck masses are cancerous and that most are metastatic. Furthermore, one should be aware that most primary sites are located above the clavicle. The thyroid gland is the most frequent single cause of a visible or palpable mass in the neck. Excluding benign thyroid enlargements, 80% of neck masses are malignant.<sup>6</sup> Eliminating thyroid neoplasms, the majority of cervical masses represent metastatic disease from other sites of the head and neck. In most instances, physical examination of the head and neck will reveal the location of the primary lesion.<sup>3</sup>

Comess, Beahrs and Dockerty studied 1,189 patients with metastatic carcinoma in cervical nodes at the Mayo Clinic during an 8-year period. Of these, 819 (69%) had a primary cancer in the structures of the head and neck; 196 (16%) in

the thorax and abdominal organs; 103 (9%) had no obvious primary; 76 (6%) in the skin. Biopsy of the cervical lump had been performed in 41% of the group who presented with an undiagnosed primary at the time they saw the patient in the clinic.<sup>7</sup>

In a series of 198 patients reviewed at the M. D. Anderson Hospital and Tumor Institute from January of 1952 to September of 1971, 77.5% of the patients had already had one or more cervical nodes removed for diagnostic purposes before being referred for definitive treatment.<sup>11</sup>

Martin and Romeiu reported that 37% of their 163 patients admitted to Memorial Hospital had had previous biopsy before being referred for definitive treatment.<sup>9</sup>

Performing open biopsy of cervical nodes is a point which Dr. Hayes Martin so strongly advised against in his writings, but unfortunately is still done with about the same frequency as it was 20 years ago.<sup>10,11</sup> Open biopsy of the cervical node as the initial step in the diagnostic protocol is condemned for the following reasons:

1. Failure to consider the real problem, i.e. diagnosis of the primary site elsewhere.
2. A clinical and pathological diagnosis can usually be obtained by a complete examination of the head and neck, including random biopsies of suspect areas.
3. The possibility of contamination of the surgical field should radical neck dissection subsequently become necessary.
4. The possibility of entrapment of neoplastic cells and resultant scar tissue would decrease oxygenation and therefore lessen radio-sensitivity if radiation therapy is subsequently used.
5. The patient may get a false sense of security once the mass is removed and fail to follow through on the needed evaluation and further search for his primary.

Needle biopsy is sometimes a useful tool, although this should never be used in parotid neoplasms. Also, there is some risk of the needle going through the mass and spreading the neoplastic cells into surgically inaccessible areas. This technique should be used with caution and only in experienced hands.

Why do occult primary lesions occur? According to Nahum, there are several possible reasons:<sup>10</sup>

1. The primary may be small or slow-growing.
2. The primary is inaccessible to vision or touch.
3. The primary does not interfere with vital or noticeable function.
4. Sensory nerves are usually not involved.

There are many areas from which occult primary neoplasms may arise (see Tables). The most common sites above the clavicle are thyroid, tonsils, nasopharynx, base of tongue and pyriform sinus. Below the clavicle the lung, stomach, breast, kidney and GI tract are the predominant areas from which occult primary neoplasms may arise and present with metastasis in the neck.

#### Diagnostic Evaluation

Once you are confronted with a patient with a suspected metastatic mass in the neck, a systematic approach should be implemented toward achieving a tissue diagnosis.

Table 3

#### OCCULT PRIMARY LOCATIONS ABOVE CLAVICLE (NAHUM)

Thyroid	Maxillary sinus
Nasopharynx	Ear
Tonsil	Larynx
Tongue	Esophagus
Floor of mouth	Pharynx

From a historical standpoint, there are several important features helpful in differentiating benign from malignant lesions. In general, malignant lesions occur in older age groups and are more common in males. They are usually firm and irregular to palpation, rather than soft or cystic. They are many times fixed to underlying structures and therefore immovable. Malignant masses are usually nontender. Nervous structures may be involved with malignant diseases, whereas benign masses seldom involve surrounding nerves. Malignant masses in general are usually laterally located in the neck, rather than in the midline. One should take note of the following:

1. Duration of the lesion.
2. Variation in size of the lesion.
3. Family history, personal or past history.
4. Pain.
5. The past history of removal of skin, oral cavity or lip lesions.
6. Head and neck symptoms referable to:
  - a. Nasopharynx
  - b. Hypopharynx
  - c. Oral Cavity
  - d. Salivary glands
  - e. Sinus
  - f. Cervical esophagus

Next, in the fashion we have previously discussed, a thorough head and neck examination should be completed. The exam should include the ears, nose, oral cavity, oropharynx, hypopharynx, nasopharynx, larynx, neck, salivary glands and the skin of the head and neck. Following this it is extremely important that you personally perform a complete general physical examination, no matter what your specialty may be. Only you are aware of the patient's problem in general, and only you know where the areas of major concern are—this should be the primary physician's responsibility.

If still suspecting a metastatic process and not having arrived at a diagnosis at this point, one should proceed with hospitalization of the patient. CBC, urinalysis and metabolic profile tests are ordered. Chest x-rays, sinus x-rays and lateral soft tissue x-rays of the neck should be done. A laryngogram is performed if symptoms are referable to the larynx. A barium swallow and upper GI series are done on all patients; the lower GI tract is studied if the mass is low in the neck; an IVP is also performed. Thyroid and salivary gland scans are also done on all metastatic neck masses with an unknown primary site. It has been documented that



Table 4

### OCCULT PRIMARY LOCATIONS BELOW CLAVICLE (NAHUM)

Lung	Urinary Bladder
Stomach	Prostate
Breast	Pancreas
Ovary	

unpalpable lesions in the parotid and thyroid glands may be recognized or suspected by scanning techniques using Technicium 99.<sup>15</sup> Once these diagnostic studies are exhausted and no diagnosis has been achieved, only then does the patient's first surgical procedure become indicated.

One should proceed with a panendoscopy (laryngoscopy, bronchoscopy, esophagoscopy and nasopharyngoscopy) under general anesthesia. With the soft palate retracted with nasal catheters, the nasopharynx is first examined with the laryngeal mirror. The tonsillar area is inspected and palpated, as is the lateral and posterior pharyngeal wall and base of the tongue. Pyriform sinus, vallecula and epiglottis as well as the endolarynx are examined. A bronchoscopy with washings is done. A cervical esophagoscopy is performed. All suspicious areas are biopsied. If no suspicious areas are seen, the nasopharynx in the superior portion of the fossa of Rosenmuller and lateral to the midline on each side, the tonsils, base of tongue and pyriform sinuses are biopsied randomly and submitted to the pathologist. I personally prefer to wait on permanent sections rather than relying on frozen sections diagnosis.

If one has not obtained a diagnosis after review of the pathological material, then the patient is a candidate for excisional biopsy of the cervical mass. One should plan his neck incision to lie in a fashion that could be extended into one through which a radical neck dissection could be accomplished. The mass is exposed and biopsied. If the biopsy report on frozen section is non-diagnostic, close the wound and await the final report. If the biopsy on frozen section shows adenocarcinoma and it is high in the neck, then radical neck dissection should be performed and then further search for the primary lesion obtained postoperatively. If there is adenocarcinoma but it is low in the neck, then no neck section should be performed and the primary should be further searched for and treated (below the clavicle in all likelihood). If the frozen section biopsy reveals thyroid neoplasm, the appropriate thyroidectomy and node removal is performed. If the biopsy shows undifferentiated carcinoma or squamous cell carcinoma, then a radical neck dissection is performed.

Thus, metastatic neck masses should be removed in the framework of a radical neck dissection in the following situations: 1) if the primary remains occult, and 2) if the primary is thought to be above the clavicle, the metastases thereby representing a regional rather than a distant metastasis.<sup>10</sup> The rationale for this approach lies in the fact that in up to 25% of these patients a primary neoplasm will

Table 5

### SITES OF PRIMARY LESION BY NODE GROUP

- A. Submental and Submaxillary Nodes
  - 1. Lip
  - 2. Floor of mouth
  - 3. Anterior 2/3 tongue
  - 4. Gingiva
  - 5. Buccal mucosa
- B. Posterior Cervical Nodes (upper)
  - 1. Nasopharynx
  - 2. Oral cavity
  - 3. Hypopharynx
  - 4. Thyroid
- C. Anterior Cervical Nodes (upper)
  - 1. Nasopharynx
  - 2. Oral cavity
  - 3. Hypopharynx
  - 4. Larynx
- D. Anterior & Posterior Cervical Nodes (lower)
  - 1. Thyroid
  - 2. Pyriform sinus
  - 3. Cervical esophagus
  - 4. Primary below clavicle

never become manifest, or if it does, it is long after a therapeutic decision is necessary. The patient could therefore succumb to his metastatic disease while one waits for the primary to become noticeable. If the primary is below the clavicle, usually radical surgery is to no avail and is not indicated. Postoperatively in the undifferentiated and squamous cell carcinomas, radiation therapy is advised by some authors to areas of the head and neck thought most likely to harbor the occult primary tumor, e.g. nasopharynx, base of tongue and pyriform sinus. The patient is followed closely through the ensuing years and re-biopsy is done whenever indicated, maintaining a constant search for the primary site to become manifest.

### Prognosis

Approximately 25% of all patients with metastatic carcinoma in cervical lymph nodes with an unknown primary site will survive five years. Interestingly, the chances of survival are greater if the primary is never found than if one is discovered. Survival is shorter if the primary is below the clavicle or if there are multiple nodes involved. In a study of 210 patients at the M.D. Anderson Hospital and Tumor Institute, the 3-year survival in patients in which no primary site was ever found was 48%. If the primary was not found the survival was somewhat better. If the nodes were present in the supraclavicular area, the 3-year survival was around 10%. They found that 17% would exhibit a primary tumor which was noticeable within five years of their presentation.<sup>10,11,12</sup>

## Summary

In this manuscript we have discussed in a practical manner the differential diagnosis of neck masses, with special reference to the metastatic cervical node associated with an unknown primary site. The more common benign entities have been discussed in more detail and appropriate treatment reviewed. A protocol for dealing with metastatic lymph nodes associated with unknown primary sites has been presented and its rationale discussed. The results of treatment are presented. It is hopeful that through this manuscript physicians and surgeons have been made more aware and cognizant of this most difficult problem which we are faced with in the patient with undiagnosed lump in the neck. This should result in a more prompt and proper diagnostic protocol and therefore more effective treatment for the patient involved. ■

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By WILLIAM H. COONER, M.D.

# WHAT CAN TO MAKE YOU

"DR. WILLIAM T. WRIGHT, President-Elect of the Medical Association of the State of Alabama, has asked me to share with you some thoughts on what we, as physicians, can do in our daily practices to ease the lives of our fellow practitioners. Constantly, we are beset with intrusions into time sorely needed to cope with the problems of our patients, irritants such as the unreasonable demands from a plethora of third parties armed with tomes of rules, regulations, guidelines and forms. Often we seem at a loss to deal with these situations as individuals, and instead rely on the concerted effort of appropriate medical organizations to try to make some reason out of chaos.

But, even more frequent than contacts with these third parties are the daily interpersonal communications which we have with our fellow physicians many times throughout our working day. The exercise of common courtesy and just a little extra thoughtfulness toward each other can accomplish much in helping us avoid frayed nerves, become more effective in the use of our precious time, and improve the quality of care which we are able to provide our patients.

Let me recite for you a brief scenario. The scene: the fourth floor nursing unit of Metropolitan Hospital. The time: Thursday, 10:00 a.m. Dr. Red, who has just emerged from Room 413 after visiting his patient, Mrs. White, pauses briefly at the nurses' desk and says to the nurse, who is busy charting, "Please call Dr. Blue and ask him to see Mrs. White in 413." The nurse then calls Dr. Blue's office and says, "Dr. Red would like you to see Mrs. White in 413." Thus, she has carried out her instructions to the letter.

Dr. Blue: "What is Mrs. White's problem for which Dr. Red wanted me to see her?"

Nurse: "Gee, I'm sorry, Doctor, but he didn't say."

Dr. Blue: "Is it an urgent problem, or one that can wait until I make evening rounds?"

Nurse: "I really don't know, Doctor. I've been off for three days."

Dr. Blue: "Well, does the patient seem to be in any acute distress?"

Nurse: "The night nurse didn't say anything about it when she gave her report. Just a minute and I'll ask the patient." (WAIT, WAIT, WAIT) "Hello, Doctor, she is sleeping right now. Let me check the nurses' notes." (WAIT, WAIT, WAIT) "According to them, she had visitors at bedside about nine o'clock and ate breakfast with relish."

Far fetched? Not at all. Having surmised that the consultation can wait until completion of office hours, Dr.



# YOU DO

## LOW PHYSICIANS' LIVES EASIER



Blue arrives to see Mrs. White and, hoping to glean a ray of information, addresses himself to the chart. No history, no physical, no progress notes are evident even though the admission date is recorded as having been two days earlier. Perhaps, if the admitting clerk was especially sharp, she wrote down the admitting diagnosis on the clinical record cover sheet. Yes, there it is, but it is spelled in something resembling Sanskrit.

**NOW BEGINS** the fishing expedition. Entering Mrs. White's room and mustering his friendliest and most professional aura, Dr. Blue says for an opener, "Good afternoon, Mrs. White. I'm Dr. Blue and Dr. Red has asked me to see you in consultation. What kind of trouble have you been having?" The surprised Mrs. White replies, "That's funny. He didn't say anything to me about calling you in. What did he want you to see me about?"

The response to this question requires the greatest care and professional tact, and one can only surmise what Dr. Blue's response might be. Finally, after having waded through a virtually impossible situation, with the pertinent findings well in his head, Dr. Blue departs with a friendly wave to the nurse, still pouring busily over her charts.

Re-enter Dr. Red. He examines the chart for the consultation which he expected from Dr. Blue, but the only information comes from the nurse's note, which reads, "Patient visited by Dr. Blue." Here beginneth the second fishing expedition.

"Good evening, Mrs. White," says Dr. Red, in his most concerned bedside manner. "I see Dr. Blue was in to see you today. What did he tell you?" "Really not very much," counters Mrs. White. "He just mostly stroked his chin and said 'humh'."

This exchange exemplifies the all-to-frequent breakdown in courteous communication between physicians and shows graphically, I think, how such lack of basic courtesy leads to poor patient care. How much better it is to incorporate into the request for consultation the following important elements:

- (1) Who is the patient (name, age, sex)?
- (2) Has the consultant ever seen the patient before?

Perhaps most physicians have better memories than I do, but I may have seen a patient previously without recalling it. It helps if I know beforehand that I have seen the patient before so I can check my records.

- (3) Why is the patient hospitalized? Is the condition for which the consultant is asked to see him the primary problem or is he in for something else?
- (4) Why are the services of the consultant needed?

(5) When is the consultation needed? "Stat" implies a situation in which the services of the consultant are needed on an emergency basis, and how appreciative we are when one of our colleagues responds to that need with immediate assistance. The next level of urgency of consultation is "please see today". The third level of urgency is "at convenience." This does not mean a week or ten days hence, but as soon as it is convenient for the consultant to see about the patient, perhaps within twenty-four hours or so.

With these elements in mind, a consultation request might read as follows: "Consultation to Dr. Blue. 72-year old male, known to you, hospitalized for repair of large, right inguinal hernia. Surgery tentatively scheduled for 5/7/76. Request evaluation and treatment of his known diabetes during hospitalization as needed. Please see today. (Signed) Dr. Red."

The one minute required to provide this information is far less than the time lost in a fishing expedition by Dr. Blue. Armed with this basic information, Dr. Blue can do no less than respond in writing with his findings and recommendations. Such a courteous exchange accrues to the benefit of the patient, both physicians involved, and to the image which the patient has of the medical profession.

**A USEFUL ADJUNCT** to the consultation process is pre-notification that a consultation will be forthcoming. If one sees a patient in the office who is going to be hospitalized at some future date and who will require consultation with another physician during that hospitalization, it is very helpful to send a copy of the consultation request by mail to the consultant, so that he will know the patient is to be admitted on a certain future date. He can then plan to see that patient during hospital rounds. For example, should the patient's admission be scheduled for a Sunday, the consultant can see that patient during his Sunday afternoon rounds, instead of being called by the nurse at eight or nine o'clock at night about a consultation which could well have been handled on a timely basis during his regular rounds.

What about outpatient consultations? The needed elements of a consultation request can be telephoned to the consultant, or if there is time, sent by mail. After the patient has been seen, it is mandatory that the consultant's

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**\*Urologist, Mobile.** Dr. Cooner is currently serving as the Vice-President of MASA. This presentation by Dr. Cooner was made during MASA's 115th Annual Session in Montgomery, April 15-17, 1976.

## WHAT CAN YOU DO?

report be transmitted to the requesting physician in writing in a timely manner, and if the condition is an urgent one, also by telephone. Both routes of communication are usually needed when the patient is sent from out-of-town. The consultant should remember that the family of the patient in his home town are practically sitting on the doorstep of the home-town physician wanting to know what the consultant's findings and recommendations are, so the sooner the information can be transmitted back to the referring physician, the better.

The two-way street of consultation is only one example in which we can practice courtesy toward our conferees. Another area is courtesy in the use of the telephone. When a doctor calls another doctor, he should be on the line and ready to talk when the called doctor answers. Too often the call is initiated by a physician's nurse, who asks the called physician to hold the line until her doctor comes to the telephone. To make a call in such a manner implies that the time of the called physician is not as valuable as that of the calling physician. It is also very helpful to ask the receptionist of the called physician to pull a patient's chart to which he may refer prior to your speaking directly with the physician. This saves the called doctor the embarrassment of being unable to recall from memory every detail about a patient.

Emphasis needs to be placed upon the subject of "loose talk." The ears of patients and their families are wide open, and particularly under the stressful event of hospitalization

or that of a visit to a physician's office, they may overhear and misinterpret things that are said through the careless talk of a physician or ancillary personnel. So often, in an operating suite, in which there is no holding area for patients, they are left lying on carts in the hall, where they are witness to all manner of inappropriate utterings by unthinking physicians and hospital employees. Even in your office, talk among your office personnel may be overheard by patients in your waiting room. We must be sure our personnel are well indoctrinated into the fact that "the walls have ears."

**WE ALL NEED TO** remember that virtually every patient we see has been seen at some time in the course of his illness by another physician. Without violating any professional principle or compromising the best interest of the patient, we need to be supportive of the other physician in the care rendered. The fact that medicine is not an exact science leaves a degree of latitude in methods of treatment, and even if we feel that a change of course is needed, this can be done in a tactful manner. Remember that the current problem seen through the "retrospectroscope" may be very different from that seen antegrade by the other physician.

These are only a few examples of what we can do to help each other. Twenty years ago medical schools taught little in the way of interphysician courtesy, and I doubt that very much time is devoted to it even today. Let us remember that almost all of us are at one time or another on both sides of the courtesy fence; we are both imparters and receivers of such efforts. Let's be nice to each other. ■

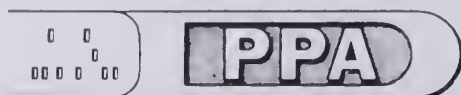
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# MEDICAL GRAND ROUNDS

By Wayne Campbell, M.D.

March 4, 1976

**ALCOHOLIC HEPATITIS** is an entity marked by liver cell necrosis and polymorphonuclear inflammation that is usually seen in chronic alcoholics. Acute alcoholic hepatitis is usually preceded by an increase in ETOH intake or "binge drinking" and is usually symptomatic. Chronic ETOH hepatitis on the other hand may be asymptomatic and smolder along for years without untoward effects, or it can be progressive and end in cirrhosis or death.

Alcohol is metabolized primarily by the liver and changes such as steatosis, as well as ultrastructural derangement, occur in almost everyone who consumes alcohol. Moreover, these changes are usually readily reversible upon cessation of alcohol intake. However, in approximately 1/3 of the chronic alcoholics cellular necrosis with inflammation occurs giving rise to alcoholic hepatitis.

The course of alcoholic hepatitis is variable: (1) It can resolve upon cessation of drinking with return of normal liver architecture; (2) it can persist with varying degrees of necrosis and inflammation without progression to cirrhosis or (3) it can be a fulminant or progressive disease with cirrhosis and/or death as end result.

The importance of this disease entity is realized in the fact that it is the leading cause of cirrhosis in the Western world<sup>1</sup> and cirrhosis is now the sixth leading cause of death among adults in the United States.<sup>3</sup> However, only about 1/3 of the cases of alcoholic hepatitis progress to cirrhosis.<sup>2</sup> This paper is a review of this interesting and still incompletely understood disease entity.

## HISTORY

Alcohol has been associated with liver disease for a number of years. In 1892, Osler attributed several cases of "acute necrosis of the liver" to alcohol excess.<sup>4</sup> In 1911, Mallory presented a paper discussing five entities from which cirrhosis could arise. One of these was attributed to the affects of alcohol and he felt that the pathological changes seen were characteristic of alcohol. He described his observations as follows: "In the chronic, progressive, so-called alcoholic - type of cirrhosis there occurs a peculiar form of necrosis of the liver cells, which seem to be characteristic of it. The cytoplasm of the cells first undergoes a degenerative change in consequence of which an irregular, coarse, hyaline meshwork appears in it. This meshwork stains deeply with eosin and with phosphotungstic acid hematoxylin after fixation in Zenker's acid. This degenerative change may attack single cells or small or large groups of them; it may occur focally or very diffusely. The affected cells may be situated in any part of the lobule, but lie most commonly, perhaps, in the region of the portal vessels, and sometimes are sharply limited to that location.

The affected cells and the nuclei within them are usually swollen. After the hyaline change has reached a certain degree of intensity the cells are surrounded and invaded by numerous polymorphonuclear leukocytes which dissolve the cells, the hyaline material last, and thus bring about their disappearance.

Along with this hyaline change and destruction of the liver cells there occurs active regeneration as evidenced by occasional mitotic figures in adjoining liver cells. There is also more or less proliferative activity on the part of the fibroblasts resulting in increase of connective tissue."<sup>5</sup>

In 1941, Cates reported several cases of hepatitis associated with alcoholism,<sup>26</sup> but did not correlate his findings with changes in liver histology. It was not until 1954 when Phillips and Davidson first described the "acute hepatic insufficiency of the chronic alcoholic"<sup>33</sup> that the clinical syndrome that went along with the pathological picture described by Mallory was recognized. After that, other case reports of the same disease entity appeared in the literature and were reported under varying titles including florid cirrhosis.<sup>37</sup>

In 1962, the term alcoholic hepatitis was first coined by Beckett and his group,<sup>7</sup> and since then this term has been used to describe this entity. Since 1962, there have been a number of papers published concerning this disease and its recognition as a clinical entity has been widespread with diagnosis being made with increasing frequency.

Recently, there has been much interest in the entity because of its relation to cirrhosis and much work has been done to attempt to determine why some people who drink heavily acquire the disease while others who drink as much or more do not. In the past two years, an animal model, the baboon, has been found which should help elucidate certain aspects of the disease, including its etiology and what determines its course in different individuals.

## HISTOLOGY AND PATHOLOGY

Alcoholic hepatitis is a necrotizing disease of the liver that is associated with varying degrees of acute inflammation. Exactly what constitutes alcoholic hepatitis histologically still remains quite controversial. As you will recall, from the excerpt of Mallory's paper, he considered hyaline degeneration, or Mallory's bodies as it is commonly referred to today, as being characteristic of alcohol induced liver damage. He also described hepatic cellular necrosis, inflammatory response, and increased fibrous tissue.

Since that time, almost every author's histological criteria has been basically similar to that of Mallory's varying mostly on two points: (1) whether or not steatosis



# ALCOHOLIC HEPATITIS

need be present to make the diagnosis, and (2) whether or not Mallory's bodies need be present to make the diagnosis. Today most authorities agree that the diagnosis can be made without either steatosis or Mallory's bodies as long as the following are present:<sup>2</sup>

1. Necrosis of hepatic cells showing ballooning of the cytoplasm with irregular coarse and fine vacuolization producing spiderweb-like eosinophilic network.

2. Inflammatory response consisting primarily of acute inflammatory cells or polymorphonuclear leukocytes with the infiltration occurring around the central vein.

3. Proliferation of fibrocytes and increased amount of connective tissue.

Of course, although the presence of steatosis and Mallory's bodies are not necessary for the diagnosis, they are frequently seen in biopsy specimens taken from patients with alcoholic hepatitis. Steatosis is felt to be like a blemish which resolves quickly upon discontinuing alcohol and is without sequelae. On the other hand, the exact role of Mallory's bodies or alcoholic hyaline is still controversial.<sup>2,11</sup>

Although Mallory's bodies or alcoholic hyaline is characteristic of ETOH induced liver damage it (or at least something that resembles it very closely on light microscopically) is also seen in Indian childhood cirrhosis, Wilson's disease, phosphorus poisoning, chronic active hepatitis, and biliary cirrhosis.<sup>9</sup> Therefore, it really can not be considered as "alcoholic" hyaline since most of these disease entities are not related to alcohol, but this term is still widely used and accepted.

ETOH hyaline has been characterized at least to some extent and has been found to be a relatively insoluble protein that contains no fat, carbohydrate, DNA or bilirubin, is PAS negative, and has large amounts of arginine, tyrosine and free amino and sulphhydryl groups.<sup>9</sup> Electron microscopy reveals that it is made up of randomly oriented fibrils ranging in size from 30 to 210 Å without a limiting membrane. To date three types of ETOH hyaline have been identified according to the morphology of the fibrils:<sup>10</sup>

1. Type I contains irregular, connecting parallel filaments

2. Type II (the most common type) is characterized by branching tubular fibrils which are arranged randomly and

3. Type III is composed of a granular osmiophilic material in which fibrils are occasionally identified.

Its origin is still unknown and various organelles have been implicated as the source including altered mitochondria, rough endoplasmic reticulum, and mitochondria and lysosomes. These hypotheses have not been substan-

tiated, however. Still other authors feel that alcoholic hyaline is really the product of cytoplasmic degeneration.<sup>9</sup> Most recently French and Davies have done extensive work with this interesting intracellular inclusion and feel that it is produced by ribosomes and resembles the intermediate filaments or microtubules of the liver cell.<sup>10</sup>

The extent of the above described histological changes varies from individual to individual. There may be patchy involvement with minimal necrosis and inflammatory response or there may be diffuse involvement with minimal necrosis and inflammatory response or there may be diffuse involvement with marked necrosis and inflammation. However, the degree of inflammation in the liver does not always correlate with the intensity of parenchymal destruction in the acutely ill patient especially in the chronic alcoholic.<sup>2</sup>

## ETIOLOGY

The exact etiology of alcoholic hepatitis is unknown but there are probably several factors that contribute to its pathogenesis. Of course, alcohol plays an important role but other factors such as genetic predisposition, nutritional deficits and their effects on the body's metabolism, and immunologic alterations also probably play a part in the pathogenesis of alcoholic hepatitis.

The consumption of alcohol is the most important of the above factors as this entity has never been seen in patients who are non-drinkers. The amount and duration of alcoholic intake correlates with the incidence of liver damage and alcoholic hepatitis. In patients who consume less than 80g or 8 ounces of 86 proof ETOH a day the incidence of alcoholic liver disease is very low. On the other hand, those patients who consume greater than 160 g of ETOH a day, the incidence of liver disease is very high and liver damage is almost assured.<sup>1</sup>

The duration of drinking has also been found to be an important factor and in one study the average duration of drinking before the diagnosis of alcoholic hepatitis was made was 11.9 years.<sup>8</sup> Therefore, the development of hepatitis seems to be at least partially a dose dependent phenomena. However, there are exceptions to this generalization and in Galambos' study in 1971 one of his patients developed alcoholic hepatitis after only a 3-month binge.<sup>1</sup>

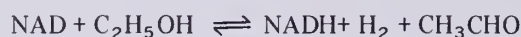
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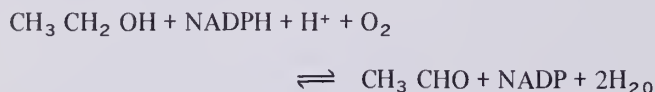
# Medical Grand Rounds

Alcohol has been shown to be a direct toxin to the bone marrow, myocardium, and skeletal muscle and it is now widely accepted that it is also a hepatotoxin.<sup>9</sup> Alcohol is primarily metabolized in the liver which accounts for 80 to 90% of ethanol oxidation.<sup>12,13</sup> Although other tissues have enzymes capable of metabolizing alcohol this is usually not of importance.<sup>13</sup> There are at least 3 enzyme systems that are found within the liver with the capability of metabolizing alcohol—

1) Alcohol dehydrogenase, 2) microsomal ethanol-oxidizing system, and 3) catalase. Of these, the ADH system is by far the most important and metabolizes approximately 80% of the ETOH that the liver handles and it is found in the cytosol of the cell. It is an NAD dependent enzyme and operates at a pH maximum of 10.4.



The availability of NAD appears to be the rate limiting<sup>12,13</sup> and this enzyme is not induced by prolonged ETOH ingestion. The other system that appears to be important in ETOH metabolism is MEOS which is located in the SER, has a pH optimum of 7.2 and is dependent on NADPH.



This enzyme under normal circumstances accounts for approximately 15-20% of the alcohol metabolized by the liver, but with unusual circumstances of very heavy ETOH use it can be induced and can detoxify larger amounts of ETOH,<sup>13,14</sup> which probably accounts for the tolerance that chronic alcoholics develop. Catalase is felt to be of little significance in the metabolism of ETOH.

Since the liver is the major organ of alcohol metabolism its effects are usually seen here first. Some of the changes brought about in the liver are due to the altered redox state of the liver cell that occurs after oxidation of large quantities of alcohol while other changes are due to the direct toxic effect of alcohol on the hepatic cell. These changes can be appreciated with light and electron microscopy and include: Steatosis, swelling and disfiguration of mitochondria with disorientation of cristae, increase in the smooth endoplasmic reticulum, and a decrease in the rough endoplasmic reticulum.<sup>12</sup>

Interestingly enough, these changes are seen in fatty liver, which is readily reversible, and in alcoholic hepatitis which may or may not be, and most authors agree that these changes do not explain the difference between the two entities. However, Lieber postulated that the two entities might be related and that when sufficient ultrastructural damage occurred cell necrosis followed with inflammation resulting in hepatitis.<sup>15</sup>

Most authorities agree that genetic predisposition to the affects of alcohol explains to a large degree why some individuals develop hepatitis.<sup>9</sup> This has been at least

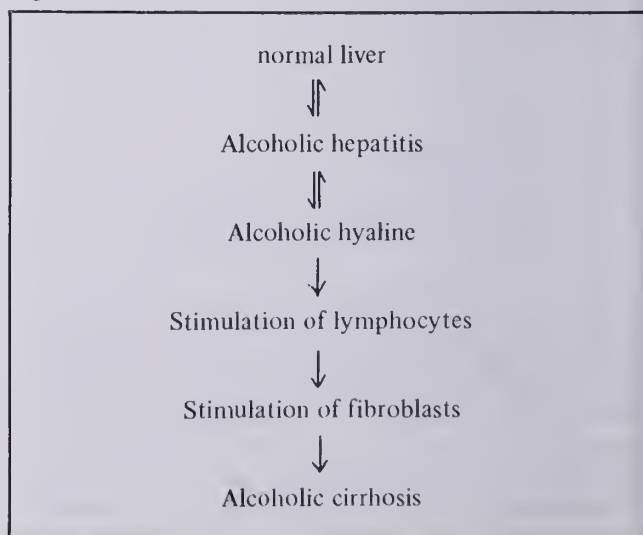
partially supported by several studies and observations. Galambos found that in his study there was an unexpected increased incidence of ETOH hepatitis among young black females,<sup>8</sup> Fennah observed that there was a significant difference in the metabolism rate of ETOH between Eskimo's and Caucasians<sup>32</sup> (although this has been somewhat refuted by Bennion et. al. who found no difference between Caucasians and American Indians<sup>31</sup>) and the observation that the incidence of cirrhosis varies from population to population, i.e., American Jews are relatively spared while American Indians have a high incidence of cirrhosis.<sup>12</sup>

Nutrition also probably plays a role in the pathogenesis of alcoholic hepatitis. Although it is now generally agreed that while good diet does not completely prevent liver damage as once thought and that several studies have shown that liver damage occurs in spite of a good diet, it has also been found that malnutrition leaves the liver more susceptible to the affects of ETOH.<sup>16</sup> Alcoholics are frequently deficient of folic acid, zinc, magnesium, B<sub>1</sub>, B<sub>6</sub>, and B<sub>12</sub> and Leevy et. al. have shown that in the absence of these nutrients the lymphocytes function abnormally and that liver cell regeneration is impaired.<sup>16</sup>

**IMMUNOLOGIC ALTERATIONS** have recently been noted in patients with alcoholic hepatitis and cirrhosis and some authors feel that this may account for the development of ETOH hepatitis. In 1972, Sorrell et. al.<sup>19</sup> noted that lymphocytes from patients with alcoholic hepatitis when exposed to ETOH and acetaldehyde had a significant increase in their stimulation index, but that lymphocytes from patients with normal liver, alcoholic fatty liver, acute viral hepatitis or inactive Laennec's cirrhosis did not. (Stimulation indices were based on the results of radiothymidine incorporation into DNA). The gamma globulins were observed to be elevated also and this was felt to be a nonspecific elevation of all the globulins. However, when purified it was found that IgA bound specifically to alcoholic hyaline and they postulated that this fraction contained an auto-antibody.

Shortly thereafter Leevy, et.al., observed that there was an increase in the stimulation index and the production of

Figure I





migration inhibition factor when alcoholic hyaline was added to lymphocyte cultures obtained from patients with alcoholic hepatitis.<sup>20</sup> This group of investigators also noted that the supernatant from the alcoholic hyaline-stimulated lymphocytes evoked a significant increase in the incorporation of tritiated proline into collagen by cultured fibroblasts.

From this data they postulated that alcohol hyaline that is produced secondary to toxic effects of alcohol acts as a neo-antigen and brings about immunologic hyperactivity and subsequent fibrogenesis. Moreover, it is the stimulation of fibrogenesis by the immunologic hyperactivity that causes the development of cirrhosis in some cases of alcoholic hepatitis.<sup>20,21</sup>

Fig. 1 sums up their hypothesis. This hypothesis has been somewhat supported by the finding that cirrhosis is seen in a significantly larger percentage of those patients with alcoholic hyaline than in those without this lesion.<sup>22</sup>

CLINICAL MANIFESTATIONS

The classical presentation for acute alcoholic hepatitis is nausea and vomiting, anorexia, abdominal pain and weight loss in a chronic alcoholic who has recently been on a binge. However, the disease has a spectrum of presentations from that of an essentially asymptomatic patient who is found on routine exam to have hepatomegaly or altered liver function tests to the fulminantly ill patient who presents with marked icterus, fever, leukocytosis, ascites, prolonged protime and a rapid downhill course, terminating in death.

Unfortunately, no one clinical feature is present 100% of the time. Hepatomegaly is the most common clinical finding and depending on the study has been noted in 80-100% of the cases of alcoholic hepatitis, followed by anorexia.

The following table was compiled from several studies and indicates the incidence of clinical manifestations in patients with alcoholic hepatitis.

The Frequency of Symptoms in Alcoholic Hepatitis

Symptom	Frequency
Anorexia	67-75%
Nausea and vomiting	20-50%
Abdominal pain	25-70%
Weight loss	40-67%

The Frequency of Physical Findings in Alcoholic Hepatitis

Finding	Frequency
Hepatomegaly	80-100%
Ascites	10-67%
Jaundice	33-67%
Fever	25-67%
Splenomegaly	20-40%
Encephalopathy	10-20%

Of course the exact frequency of clinical manifestations is very hard to determine because the studies from which these tables were compiled had different criteria for admission to the respective studies. Some of the studies based their admission criteria solely on clinical manifestations, while at the other extreme, some studies based their admission solely on histological criteria. In the former, the incidence of clinical manifestations would tend to be higher and in the latter they would tend to be lower.

LABORATORY FINDINGS

Again, unfortunately, there is no one laboratory test that is abnormal 100% of the time in alcoholic hepatitis or one that is pathognomonic of the disease. Usually the SGOT is elevated but not markedly so, usually falling in the 200-500 U range, although in rare circumstances it has been seen to go over 1000 U.<sup>1</sup> The SGPT is also frequently elevated but not as often as the SGOT. When both are elevated, the SGOT is almost always higher and the SGOT/SGPT ratio is usually greater than 1.5. Some authors feel that this occurs only in alcoholic hepatitis.<sup>1,24</sup>

Alkaline phosphatase is also frequently elevated but this is not always the case and doesn't appear to be closely related to cholestasis.<sup>1</sup> The values are usually only mildly elevated, but in some series there have been markedly elevated levels (sometimes up to five times normal).<sup>6</sup> The total bilirubin is commonly elevated but is usually only mildly so and when levels are greater than 5 it usually indicates severe disease.<sup>2</sup>

The albumin level is usually abnormal also with values less than 3 a common occurrence and is seen in approximately 60% of patients with this diagnosis,<sup>1,8</sup> but the albumin may be normal even in the face of ascites early in the disease.<sup>6</sup> The gamma globulins are also frequently elevated even when no cirrhosis is present. The protime is variable and may be normal but it usually follows the degree of necrosis and hepatocellular dysfunction and can be quite prolonged and unresponsive to parenteral Vitamin K.

Anemia, usually mild, is commonly seen and is probably due to a multitude of facts including B<sub>12</sub> and folic acid deficiency, blood loss and direct marrow toxicity of ETOH.

Figure II

Results of Laboratory Tests in Alcoholic Hepatitis <sup>2</sup>	
Test	Frequency
Anemia	67-80%
Leukocytosis	25-67%
SGOT (elevated)	63-85%
Alkaline phosphatase (elevated)	60-80%
Bilirubin (total)	60-90%
Albumin < 3gm.%	60%
Total protein	70%
Prolonged protime	30-40%

# Medical Grand Rounds

A Hct of less than 30% is relatively rare but has been seen in up to 50% of patients with anemia.

Leukocytosis can also be significant. However, in most of the series of case reports at least 50% of the patients with a significantly elevated WBC had an infection that could account for the leukocytosis.<sup>1,8</sup> However in the other 50% no other cause for a leukocytosis could be found other than alcoholic hepatitis. The white blood cell counts are usually not greater than 40,000 but there has been one case report of a white cell count of 129,000<sup>6</sup> associated with alcoholic hepatitis.

See Fig. II for a summary of the frequency of laboratory abnormalities.

## DIAGNOSIS AND DIFFERENTIAL

As you can see, alcoholic hepatitis can have a wide range of presentations and the diagnosis can at times be difficult. Because of the non-specificity of the clinical and laboratory manifestations and because alcoholic hepatitis can mimic other disease processes the only way to make a definitive diagnosis is to do a liver biopsy. This is especially important in cases that mimic acute abdomen: Fever, leukocytosis, abdominal tenderness and jaundice, because of the much higher surgical mortality in these patients. In one study, 16 of 23 patients with ETOH hepatitis were originally given a surgical diagnosis and of the 10 who were operated upon, 7 did not survive.<sup>39</sup>

## TREATMENT

The mainstay of treatment of alcoholic hepatitis is complete abstinence from alcohol.<sup>2</sup> Galambos has questioned whether complete abstinence is necessary or whether reduced amounts of ETOH would be sufficient for recovery in most patients. There have been several studies that revealed that patients with alcoholic hepatitis showed improvement clinically and morphologically although they continued to drink at reduced levels. However, the improvement was more rapid with complete abstinence<sup>1</sup> and because of the "all or none" type of personality many alcoholics have, complete abstinence seems to be warranted.

The role of a good diet and rest, while classically recommended, is also questioned by Galambos who cites a study where improvement of alcoholic hepatitis occurred in patients both on high and low protein and on high and low fat diets.<sup>1</sup> Theoretically, a good diet has a sound basis in that it provides necessary calories and amino acids for liver cell regeneration. Leevy, et. al.<sup>16,19</sup> feel that alcoholics are almost always deficient in one or more nutrients if looked for carefully enough and that these deficiencies not only alter the cells' ability to synthesize nucleic acids and protein, but also have an effect on the immunocompetence.

While there has been marked improvement in patients with repletion of their deficient nutrients such as B<sub>12</sub> and folic acid<sup>16</sup>, there is no evidence that adding vitamins and other nutrients in large amounts speeds the healing process in patients with ETOH hepatitis who are not deficient in them.<sup>1</sup>

The role of steroids in the therapy of ETOH hepatitis remains controversial. Steroids have been shown to increase collagenase activity and decrease proline hydroxylase activity which theoretically should help reduce fibrosis in the liver of patients with ETOH hepatitis.<sup>29</sup> Furthermore, if an autoimmune type phenomena with alcoholic hyaline or some other as yet unrecognized antigen is the reason why some patients go on to cirrhosis, then this should be ameliorated by steroids because of their ability to suppress the immune system.

However, in several studies there has been little evidence of the efficacy of steroids in the therapy of alcoholic hepatitis. In fact, in one Danish study there was evidence that steroids had a deleterious effect on patients with chronic alcoholic liver disease.<sup>1,28</sup> Only one study showed evidence of benefit of steroid therapy and this was seen only in a subgroup of patients who were severely ill and had encephalopathy. In this study, one of the nine patients on steroids died while all six given placebo died.<sup>38</sup> However, this has not been confirmed in more recent studies.<sup>28</sup>

Other agents have been advanced for the treatment of ETOH hepatitis and include testosterone and other androgenic steroids but this group of compounds have not been proven effective.<sup>1,30</sup> Colchicine, because of its ability to decrease collagen secretion from fibroblasts,<sup>16</sup> and penicillamine because of its ability to inhibit cross linking needed for formation of collagen molecules,<sup>16</sup> have also been proposed as therapeutic agents. Neither of these have been studied in a controlled trial and their efficacy is still very questionable.

## COURSE AND PROGNOSIS

### Acute Illness

Acutely, the prognosis varies from study to study. Of all the parameters that can be measured, the prognosis of the acute illness seems to be correlated best with the protime.<sup>1</sup> In those patients whose protimes were not affected by vitamin K and were too long to allow biopsy, the mortality rate was close to 50%<sup>2</sup>, while in those patients whose protime was close enough to allow biopsy only 7.1% died<sup>2</sup>. Moreover, a lengthening of the protime during hospitalization of over 4 seconds above control carried an increased mortality rate of 18% for those whose protime increased versus 0.7% for those whose didn't. Other parameters such as jaundice or SGOT elevation do not have an independent prognostic value that hasn't already been expressed by the protime<sup>8</sup>. Alcoholic hyaline has been associated with more severe cases of hepatitis but its presence has not indicated an increased risk of dying.

When hospitalized, up to as many as 20% of patients will initially get worse despite therapy, but as many as 1/4th of these will respond and improve over several weeks time<sup>8</sup>.

### Long Term Prognosis

After the acute illness the patients with alcoholic hepatitis can be broken into 2 groups: Those who continue to drink and those who don't.

Galambos followed a group of 169 patients with biopsy proven alcoholic hepatitis for 10 years and he found that for the first 4 years after diagnosis there was little difference between the mortality rate of each group and the

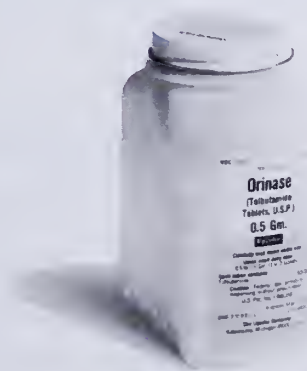
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presence of either alcoholic hyaline or steatosis initially had no relationship to the subsequent survival.<sup>8</sup> In contrast, those patients who had ascites, or cirrhosis on their initial biopsy had a significantly lower long term survival.<sup>1</sup>

For the first 4 years after diagnosis, both groups had a ten-fold increase in their mortality rate as compared to a similar age group of people without alcoholic hepatitis. However, after 4 years there was a significant decrease in the mortality rate among those who continued to abstain and their mortality rate approached that of a matched population without a history of alcoholic hepatitis.

Interestingly enough, of the patients who abstained only 3 of 16 had return of normal structure (none of those who continued to drink had return of normal architecture). The others in the group either had a persistent hepatitis without fibrosis or went on to develop cirrhosis. On the other hand a large number of the patients who continued to drink developed no evidence of cirrhosis. Therefore, while abstinence doesn't guarantee return to normalcy and continued drinking doesn't lead to aggressive hepatitis with resultant cirrhosis all of the time, from the present studies it can be safely said that the development of alcoholic hepatitis is a good reason to stop drinking for good.

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**HEALTH OFFICER FOR JEFFERSON COUNTY,** Birmingham, Alabama. Well organized department with present staff of 450 and serves population of 700,000. Requires M.D. with M.P.H. or qualified for an appropriate American Speciality Board. At least 3 years experience in public health or closely allied field. Starting salary in upper \$40,000. Eligibility for licensure in Alabama required. Position available October 1, 1976. Reply to: Director of Personnel, The Personnel Board of Jefferson County, 301 Courthouse Annex, Birmingham, Ala. 35203.

# The Privacy Act and Social Security Disability

**THE PRIVACY ACT** of 1974 became effective on September 27, 1975. Since physicians in Alabama supply vital information to the Social Security Administration to determine eligibility for disability and/or supplemental security income (formerly Department of Public Welfare assistance), it would help the physician to understand how the Act applies to social security disability cases.

In general, the Privacy Act reaffirms the confidentiality of social security records, while instituting changes related to an individual's right to all records about him including medical records and the right to request correction or amendments of the record. The amendment may take the form of corrections of inaccurate information, removal of items of information which are no longer relevant or timely, or the addition of information to supplement incomplete information. To date, requests for corrections or amendments have been infrequent.

In view of the confidential nature of such information, the request and authorization must be in writing, signed and dated by the individual.

**UPON REQUEST** for disclosure of medical information, the individual will be asked to designate in writing a representative through whom medical records may be disclosed. Such a representative should be willing to receive medical information and to discuss it with the individual.

It is anticipated that in practically all cases, this individual will be the applicant's private physician. However a non-medical representative may be designated. The medical records will be reviewed by an official in the employ of the Social Security Administration to determine that direct disclosure of this information will not be likely to have an adverse effect upon the individual. If the reviewing official should determine that direct disclosure of the medical information would be likely to have an adverse effect on an individual, or it cannot be determined by reviewing the records that direct disclosure may have an adverse effect, the medical information will be sent to the designated representative rather than the individual.

The number of requests from individuals to inspect medical reports obtained in connection with their disability claim is relatively small. In a great majority of requests the individual will already be aware of much of the information in his medical record.

Another change regards confidential or restricted information. No pledge of confidentiality may be given to the third party, including medical sources providing information to the Social Security Administration about the individual, except in investigative and possible fraud situations. Therefore, medical information should not be forwarded to the Social Security Administration with restrictions or "confidential" annotations.

**THE NEW DISCLOSURE** of information provisions do not change the way physicians should complete medical reports in connection with the patient's disability claim. As always, the emphasis is on the type of objective reporting—that is, symptoms, signs, and laboratory findings relating to the patient's condition that is required for impartial disability determination under both programs. It is important to include pertinent negative findings as well as positive findings in the report.

If certain laboratory proceedings or X-rays are deemed advisable, but are not available, a statement of this fact would be helpful regarding further evaluation.

The medical report should be sufficiently complete so that medical consultants can draw a firm conclusion from the positive findings to determine whether the individual meets the requirements for disability as set forth in the Social Security Act. Although the treating physician may not always agree with the decision, it must be realized that requirements are set by law and all the Social Security Administration can do is follow the law as passed by Congress. Since the decision of disability is based on objective medical evidence only, and not opinion, the physician should refrain from stating opinions in the report. The reporting physician should keep in mind that not only are opinions not a basis for determinations, but, should the individual request a copy of medical evidence used to prepare the decision in a case, the opinion included in the report will be part of the information released.

In this brief article, we have discussed the major changes in the Social Security Disability Program brought about by the Privacy Act and restated the important underlying principles of the disability program. The importance of prompt, complete medical reports cannot be over emphasized.

With prompt, complete medical reports initially, the necessity of recontacting the physician and utilizing his or her valuable time obtaining additional information can be eliminated. Although completing these reports does place additional demands on a busy physician's time, the treating physician's continued cooperation aids in promoting prompt and hopefully fair claims. ■

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\*Medical Consultant, Disability Determination Division, South Carolina Vocational Rehabilitation Department. Originally published in the February, 1976 edition of the JOURNAL OF THE SOUTH CAROLINA MEDICAL ASSOCIATION. Reprint permission granted by Dr. Fellers.





## Roster Supplement

### new members

#### CALHOUN COUNTY

SVIOKLA, Sylvester Charles, III, b 46, mc Harvard 72, recip. NBME 73, P. O. Box 2208, Anniston 36201.

VAN MARTER, Neal Dahl, b 27, mc Pittsburg 54, recip. Pa. 55, P. O. Box 2208, Anniston 36201.

VERMA, Kewal Krishan, b 37, mc Jaipur, India 66, recip. South Dakota 71, P. O. Box 777, Jacksonville 36265. FP.

#### CONECUH COUNTY

DALEY, William Michael, b 28, mc Alabama 59, sb 59, P. O. Box 189, Evergreen 36401.

#### JEFFERSON COUNTY

CALLAHAN, Michael Alston, b 46, mc Ala. 71, recip. NBME 72, 903 South 21st Street, Birmingham 35205. Oph.

DELONG, James Francis, b 46, mc Cincinnati 72, recip. Ohio 72, Lloyd Noland Hospital, Fairfield 35064. I.

Galen, Norman Richard, b 42, mc Tulane 68, recip. La. 68, 1515 6th Ave., S., Birmingham 35233. U.

Galen, Wesley King, b 44, mc Tulane 69, recip. La. 69, 1023 South 20th St., Birmingham 35203. D.

GERWIN, John Marshall, b 46, mc Iowa 71, recip. Iowa 72, 1029 South 22nd St., Birmingham 35205. Otolaryngology.

HATAWAY, Clifford Jackson, b 49, mc Ala. 74, recip. NBME 76, 2701 9th Court South, Birmingham 35205. I.

JACKSON, Larry Kent, b 47, mc Ala. 73, recip. NBME 74, 323 Zeigler Building, UAB Station, Birmingham 35294. I.

KANSAL, Santosh, b 30, mc Delhi, India 55, recip. Va. 71, UAB Station, Birmingham 35294. C.

KASHLAN, Mouhamed Bashar, b 47, mc Damascus, Syria 72, Limited Lic. 75, 619 South 19th St., UAB Medical Center, Birmingham 35233. Path.

MIRELMAN, Simon, b 41, mc Chile 69, recip. D. C. 76, 1717 11th Ave., South, Suite 510, Birmingham 35205. U.

PAYNE, Robert Rex, b 47, mc Ala. 73, recip. NBME 74, UAB Station, Birmingham 35294. D.

PETERSON, Edward James Jr., b 48, mc Ala. 73, sb 76, 1900 14th Ave., South, Birmingham 35205. I.

PLUMB, Vance John, b 48, mc Duke 73, recip. NBME 74, UAB Station, Birmingham, 35294. I.

SHAW, Ronald Ahrend, b 46, mc Washington 72, recip. NBME 73, 310 Woodward Building, Birmingham 35203. EM.

#### MADISON COUNTY

BYRD, Oliver Wayne, b 49, mc Miss. 74, recip. Miss. 74, 201 Governors Dr., Huntsville 35801. FP.

FIGAROLA, Tulio Romulo, b 31, mc Havana 60 recip. Va. 67, 201 Governors Dr., Huntsville 35801. FP.

JENKINS, Thomas A., III, b 45, mc Tenn. 71, recip. Tenn. 71, 201 Governors Dr., Huntsville 35801. FP.

MCCRANEY, John Malcolm, Jr., b 48, mc Emory 73, recip. Ga. 74, 805 Fackler St., Huntsville 35801. Anes.

MCKENZIE, Thomas Aaron, III, b 44, mc Vanderbilt 70, recip. NBME 73, 905 Madison St., Huntsville 35801. R.

PRICE, Elizabeth, b 20, mc George Washington 51, recip. NBME 52, 201 Governors Dr., Huntsville 35801. I.

REED, Robert Leslie, b 37, mc Temple 63, recip. NBME 64, 805 Fackler St., Huntsville 35801. Anes.

#### MOBILE COUNTY

ASHURST, Hugh Morgan, b 46, mc Ala. 73, recip. NBME 74, 1555 Springhill Ave., Mobile 36604. I.

LILLY, Charles John, Jr., b 46, mc Tulane 71, recip. La. 71, 4100 Woodhill Dr., Mobile 36608. R.

SMITH, Charles Bennett, b 44, mc Miss. 69, recip. Miss. 69, 1110 Linpark Cove, Mobile 36608. S.

### listing changes

#### MONTGOMERY COUNTY

Chester, Thomas J., b 1947.

#### MADISON COUNTY

BURSON, Robert Allen

### reinstated

#### MARSHALL COUNTY

CALVERT, Francis Nelson, b 29, mc George Washington 55, recip. NBME 56, Box 429, Boaz 35957. GP.

ROPER, Robert Rollin, b 27, mc Miss. 60, recip. Miss. 64, Albertville - Boaz Hospital, Boaz 35957. R.

#### MONTGOMERY COUNTY

LIGHTFOOT, Philip McGowan, Jr., b 25, mc Ala. 47, sb 48, 1722 Pine Street, Montgomery 36106. GP.

#### MORGAN COUNTY

ROYER, William Albert, b 32, mc Ala. 57, sb 58, 811 2nd Ave., SE, Decatur, 35601. P.

### deceased

#### ST. CLAIR COUNTY

HARBOUR, Thomas Quincy., 8/9/76

#### MONTGOMERY COUNTY

JOHNSON, Claud D., 8/18/76.

### new phone numbers

ASHURST, H. M., Mobile, 479-5938.

CALLAHAN, M. A., Jefferson, 322-5457.

DALEY, W. M., Conecuh, 578-4184.

DELONG, J. F., Jefferson, 783-5119.

FIGAROLA, T. R., Madison, 881-7998.

GALEN, N. R., Jefferson, 933-9211.

GALEN, W. K., Jefferson, 324-2222.

GERWIN, J. M., Jefferson, 252-9236.

HATAWAY, C. J., Jefferson, 933-5000.

JACKSON, L. K., Jefferson, 434-3505.

JENKINS, T. A., III, Madison, 536-6137.



KANSAL, Santosh, Jefferson, 934-4821.  
 KASHLAN, M. B., Jefferson, 934-4713.  
 LILLY, C. J., Jr., Mobile, 343-1413.  
 MCCRANEY, J. M., Jr., Madison, 883-8639.  
 MCKENZIE, T. A., III, Madison, 533-4300.  
 MIRELMAN, Simon, Jefferson, 933-7618.  
 PAYNE, R. R., Jefferson, 934-4141.  
 PETERSON, E. J., Jr., Jefferson, 933-2560.  
 PLUMB, V. J., Jefferson, 934-4505.  
 PRICE, Elizabeth, Madison, 536-5511.  
 REED, R. L., Madison, 534-5511.  
 SHAW, R. A., Jefferson, 252-9182.  
 SMITH, C. B., Mobile, 344-1786.  
 VAN MARTER, N. D., Calhoun, 237-5421.  
 VERMA, K. K., Calhoun, 435-3035.  
 WALKER, G. R., Jr., Madison, 539-4178.

## address changes

### DALLAS COUNTY

REEVES, Hugh M., present Selma to 217 Broad Street, Selma 36701.

### HOUSTON COUNTY

PASCHALL, Walter J., present Dothan to No. 1 New Warrington Road, Pensacola, Fla. 32506.

### JEFFERSON COUNTY

BALLARD, James W., present Birmingham to P. O. Box 2514, Birmingham 35201.

BEARMAN, Alvin J., present Birmingham to Anesthesia Group East, P. A., 7901 South 1st Ave., Suite 206, Medical Plaza, Birmingham 35206.

BENNETT, Ann, present Birmingham to 216 Marengo Road, Florence 35630.

DAVIS, Paul L., Jr., present Birmingham to 304 Jackson Dr., Waynesville, North Carolina 28786.

DICK, Donald A. L., present Birmingham to P. O. Box 2514, Birmingham 35201.

HENLEY, Felix T., present Birmingham to P. O. Box 2514, Birmingham, 35201.

LITTLE, Gary N., present Birmingham to P. O. Box 2514, Birmingham, 35201.

LUTHER, Jerry R., present Birmingham to P. O. Box 146, Gallion 36742.

MORGAN, Perry A., Jr., present Birmingham to P. O. Box 2514, Birmingham 35201.

MORROS, Constantine B., present Birmingham to P. O. Box 2514, Birmingham 35201.

NAFTEL, Robert S., present Birmingham to P. O. Box 2514, Birmingham 35201.

OLIVER, Robert I., present Birmingham to 2018 Brookwood Medical Center Drive, Suite 215, Birmingham 35209.

OWENS, Harold B., present Birmingham to P. O. Box 2514, Birmingham, 35201.

PIGFORD, Malcolm L., present Birmingham to P. O. Box 2514, Birmingham 35201.

ROY, Barbara J., present Birmingham to Anesthesia Group East, P. A., Medical Plaza, Suite 206, 7901 South 1st Avenue, Birmingham 35206.

SMITH, Chandler H., present Birmingham to P. O. Box 2514, Birmingham 35201.

UPCHURCH, James C., present Birmingham to 2018 Brookwood Medical Center Dr., Suite 201, Birmingham 35209.

VAUGHN, Henry M., present Birmingham to P. O. Box 2514, Birmingham 35201.

WILLISTON, William C., present Birmingham to Anesthesia Group East, P. A., Medical Plaza, Suite 206, 7901 South 1st Ave., Birmingham 35206.

WHITTINGTON, Edward C., present Birmingham to P. O. Box 1565 Jasper 35501.

### LAUDERDALE COUNTY

DEIBERT, Kirk R., present Florence to 2830 Hermitage Dr., Florence 35630.

### LAWRENCE COUNTY

KILPATRICK, Troy F., present Oneonta to Route 1, Box 343-K, Pinson 35126.

### MADISON COUNTY

BURSON, Robert A., present Huntsville to 600 St. Clair Avenue, Suite 15, Huntsville 35801.

HUBER, Donald S., present Huntsville to 813 Franklin St., Huntsville 35801.

### MOBILE COUNTY

FICHOLO, Samuel, present Mobile to University of South Alabama, College of Medicine, Department of Medicine, 2451 Fillingim Street, Mobile 36617.

### MONTGOMERY COUNTY

BURTON, Otto L., present Largo, Fla. to 2653 Country Club Drive, Countryside, Clearwater, Fla. 33519.

### MORGAN COUNTY

HANEY, William K., present Decatur to P. O. Box 1230, Decatur 35602.

PHILLIPS, Edwin J., present Decatur to P. O. Box 1230, Decatur 35602.

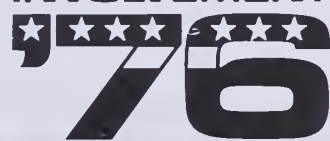
RUBIN, Richard B., present Decatur to P. O. Box 1230, Decatur 35602.

VAUGHAN, Betty W., present Decatur to P. O. Box 1628, Decatur 35602.

### TUSCALOOSA COUNTY

BURLESON, Robert J., present University to Tuscaloosa Orthopaedic Clinic, Suite B-1, River Road, East, Tuscaloosa 35401. ■

## INVOLVEMENT



## It's your write

When you've agreed with your lawmakers, have you written them a letter?

# HAZEL The Mummy

HAZEL FARRIS' LIFE had been filled with sunshine prior to the morning of August 6, 1905. She and her husband lived in Louisville, Kentucky. On that eventful morning, Hazel told her husband that she would like to have a new hat, but her husband resented her desire. He accused her of being a spendthrift which resulted in a heated argument between the young couple. The argument became a fight as blows were passed between Hazel and husband. Suddenly gunfire rang out. Her husband fell to the floor mortally wounded, a victim of his wife's outrage, steel nerve and deadly aim.

Three passing policemen heard the shots and ran into the house to investigate the situation. Hazel shot three more times and all three policemen fell across the murdered husband's body.

A deputy sheriff had been summoned and arrived on the scene. Slowly he entered the room through the back door, took the crazed girl by surprise and attempted to overpower her. In the struggle his revolver was discharged, taking the ring finger from Hazel's right hand. As he stood up, Hazel fired the fifth bullet which ended the life of the officer.

THE SHOOTING attracted a large crowd of people who were passing along the street. In the excitement, Hazel escaped through the back door and disappeared down the alley.

At the age of 25, beautiful Hazel Farris was now a criminal. A \$500 reward was soon posted for her in many states, but Hazel was able to elude the police who made an effort to find her.

Hazel escaped to Bessemer, Alabama in hopes of beginning a new life. Before long she met another man who soon professed his love for the lonely fugitive. Relying on her new lover's honor and integrity, she told him the story of how she had committed the murders back in Kentucky. But the man was not to be trusted, for he betrayed her to the law. Rather than submit to arrest, Hazel took her life by drinking poison.

Nobody came to claim the body of Hazel Farris. For some reason, the body became mummified and was in a state of de-hydration. Word of "Hazel the Mummy" spread rapidly through the small town.

HAZEL WAS first shown in Bessemer and later in Tuscaloosa. It was in Tuscaloosa that a traveling carnival man bought Hazel for \$25. For the next 32 years, he exhibited her in fairs and carnivals throughout the world.

Hazel's owner died a pauper in 1950, and the fortune made by showing her was all gone. At his death, he willed Hazel to his nephew with the stipulation that she could never be shown commercially, but that she must pay for her crimes forever by benefitting charitable and non-profit organizations.

Several years ago, the Hall of History Museum in Bessemer, Alabama discovered Hazel, who had not been seen by the public for many years. She was brought out of retirement, and is now shown as an educational and scientific exhibit by the Bessemer Hall of History Museum, Bessemer, Alabama. ■

## for the inflamed phase of hemorrhoidal flare-up

### ANUSOL-HC<sup>®</sup> SUPPOSITORIES

Rectal Suppositories with Hydrocortisone Acetate

### ANUSOL-HC<sup>®</sup> CREAM

Rectal Cream with Hydrocortisone Acetate

**CAUTION:** Federal law prohibits dispensing Anusol-HC Suppositories and Anusol-HC Cream without prescription.

**Description:** Each Anusol-HC Suppository contains hydrocortisone acetate, 10.0 mg; bismuth subgallate, 2.25%; bismuth resorcin compound, 1.75%; benzyl benzoate, 1.2%; Peruvian Balsam, 1.8%; zinc oxide, 11.0%; also contains the following inactive ingredients: t:smuth subiodide, calcium phosphate, and coloring in a bland hydrogenated oil-cocoa butter base.

Each gram of Anusol-HC Cream contains hydrocortisone acetate, 5.0 mg; bismuth subgallate, 22.5 mg; bismuth resorcin compound, 17.5 mg; benzyl benzoate, 12.0 mg; Peruvian Balsam, 18.0 mg; zinc oxide, 110.0 mg; also contains the following inactive ingredients: propylene glycol, bismuth subiodide, propylparaben, methylparaben, polysorbate 60, sorbitan monostearate in a water-miscible base of mineral oil and glyceryl monostearate. Non-staining.

**Indications:** Anusol-HC is adjunctive therapy for the symptomatic relief of pain and discomfort in: external and internal hemorrhoids, proctitis, papillitis, cryptitis and fissures, incomplete fistulas, and relief of local pain following anorectal surgery.

Anusol-HC is especially indicated when inflammation is present. When acute symptoms subside, most patients can be maintained on regular Anusol<sup>®</sup> Suppositories or Ointment.

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**Warnings:** The safe use of topical steroids during pregnancy has not been fully established. Therefore, during pregnancy they should not be used unnecessarily on extended areas, in large amounts or for prolonged periods of time.

**Precautions:** Symptomatic relief should not delay definitive diagnoses or treatment. When there is bacterial skin infection, topical corticosteroids should be used only with appropriate concomitant antimicrobial therapy. Prolonged or excessive use of corticosteroids might produce systemic effects.

**Dosage and Administration:** Anusol-HC Suppositories: Remove foil wrapper and insert into the anus. One suppository in the morning and one at bedtime, for 3 to 6 days or until inflammation subsides. Then maintain patient comfort with regular Anusol.

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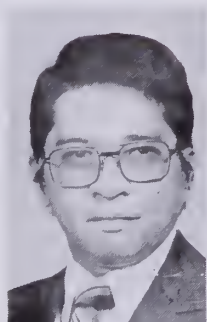
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respond in minutes**

• without belladonna alkaloids • without CNS stimulants



Artist's interpretation in bas-relief of  
external hemorrhoids, postoperative anorectal  
wounds and anal dermatitis.

## New physicians licensed to practice in Alabama



**Abellera, Manuel Conly, M.D.**, University of Santo Tomas Fac. Med. (Philippines), 1969. Reciprocity with Pennsylvania (FLEX). Specialty: Surgery. Location: Evergreen.



**Bell, Clifford Belman, M.D.**, University of Minnesota Medical School, 1975. Reciprocity with National Board of Medical Examiners. Location: Tuskegee.



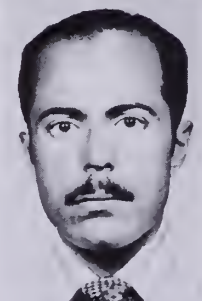
**Bradford, Charles Raymond, III, M.D.**, University of Alabama School of Medicine, 1975. Reciprocity with National Board of Medical Examiners. Location: Huntsville.



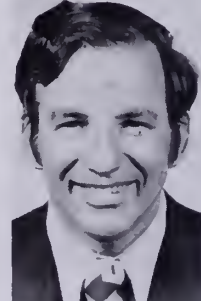
**Brown, James Edward, IV, M.D.**, University of Alabama School of Medicine, 1974. Reciprocity with National Board of Medical Examiners. Location: Birmingham.



**Anderson, Bernard Bradley, M.D.**, Howard University College of Medicine, 1970. Reciprocity with National Board of Medical Examiners. Specialty: Surgery. Location: Birmingham.



**Berliner, Daniel Samuel, M.D.**, University of Illinois College of Medicine, 1969. Reciprocity with National Board of Medical Examiners. Specialty: Aerospace Medicine. Location: Ft. Rucker.



**Buckingham, John Ladd, M.D.**, Bowman Gray School of Medicine, 1959. Reciprocity with North Carolina. Specialty: Family Practice/Internal Medicine. Location: Birmingham.



**Austin, Joseph Lee, M.D.**, Medical College of Virginia, 1975. Reciprocity with National Board of Medical Examiners. Location: Birmingham.



**Black, William Donald, M.D.**, University of Tennessee College of Medicine, 1967. Reciprocity with Tennessee. Specialty: Internal Medicine & Nephrology. Location: Florence.



**Bullock, Malton Joseph, Jr., M.D.**, University of Mississippi School of Medicine, 1975. Reciprocity with Mississippi (FLEX). Location: Mobile.



**Beasley, William Edward, Jr., M.D.**, University of Alabama School of Medicine, 1974. Reciprocity with National Board of Medical Examiners. Location: Birmingham.



**Boyce, James Ronald, M.D.**, University of Toronto, 1966. Reciprocity with Province of Ontario, Canada. Specialty: Anesthesiology. Location: Elba.



**Burke, Samuel Francis, Jr., M.D.**, Medical College of Georgia, 1972. Reciprocity with Virginia (FLEX). Specialty: OB/GYN. Location: Lanett-Langdale Area.





**Butler, Daniel Forrest, M.D.**, University of Kentucky College of Medicine, 1975. Reciprocity with National Board of Medical Examiners. Location: Huntsville.



**Chasan, Seymour, M.D.**, University of Cincinnati College of Medicine, 1952. Reciprocity with Ohio. Location: Montgomery.



**deGuzman, Virginia Asuncion, M.D.**, Fac. Med & Surgery Univ. Santo Tomas (Manila), 1957. Reciprocity with Kentucky. Specialty: Family Practice. Location: Lafayette.



**Campbell, David Maxwell, M.D.**, University of Florida College of Medicine, 1975. Reciprocity with National Board of Medical Examiners. Location: Mobile.



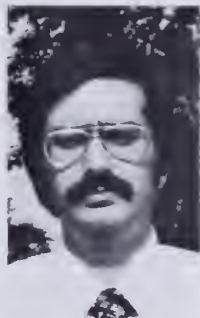
**Clark, James Allen, Jr., M.D.**, University of Alabama School of Medicine, 1970. Reciprocity with National Board of Medical Examiners.



**Dike, Chinyere Wogu, M.D.**, Howard University College of Medicine, 1971. Reciprocity with District of Columbia (FLEX). Specialty: Pediatrics. Location: Birmingham.



**Carter, James Henry, Jr., M.D.**, Howard University College of Medicine, 1973. Reciprocity with National Board of Medical Examiners. Specialty: Internal Medicine. Location: Tuskegee.



**Cook, William Alan, M.D.**, University of Tennessee College of Medicine, 1972. Reciprocity with Tennessee (FLEX). Specialty: Internal Medicine. Location: Birmingham.



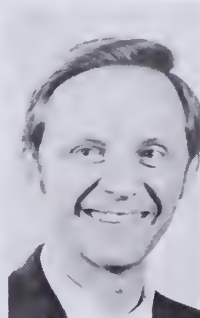
**Dike, Nnamdi Al-ozie, M.D.**, Howard University School of Medicine, 1970. Reciprocity with National Board of Medical Examiners. Specialty: General Surgery. Location: Birmingham.



**Carter, John Jefferson, M.D.**, University of Alabama School of Medicine, 1975. Reciprocity with National Board of Medical Examiners. Location: Birmingham.



**Dailey, James Owen, Jr., M.D.**, University of Alabama School of Medicine, 1975. Reciprocity with National Board of Medical Examiners. Location: Birmingham.



**Dudley, Alden Woodbury, M.D.**, Duke University School of Medicine, 1962. Reciprocity with North Carolina. Specialty: Pathology. Location: Mobile.



**Cepeda, Manuel Lawrence, M.D.**, University of Florida College of Medicine, 1969. Reciprocity with New Hampshire. Specialty: General & Child Psychiatry. Location: Mobile.



**Dalton, Jep Paul, Jr., M.D.**, University of Alabama School of Medicine, 1974. Reciprocity with National Board of Medical Examiners. Location: Mobile.



**Durkin, Walter James, M.D.**, Loyola University School of Medicine, 1971. Reciprocity with National Board of Medical Examiners. Specialty: Internal Medicine. Location: Birmingham.

## AROUND THE STATE



**Edwards, Robert Harrison, M.D.**, Cornell University Medical College, 1953. Reciprocity with National Board of Medical Examiners. Specialty: Pathology. Location: Mountain Brook.



**Ganji, Stalin, M.D.**, Andhra Medical College (India), 1966. Reciprocity with District of Columbia (FLEX). Specialty: Neurology. Location: Birmingham.



**Heggie, Glen D., M.D.**, University of Michigan Medical School, 1971. Reciprocity with National Board of Medical Examiners. Specialty: Internal Medicine. Location: Centreville.



**Esham, George Elwood, M.D.**, University of Louisville School of Medicine, 1975. Reciprocity with National Board of Medical Examiners. Location: Mobile.



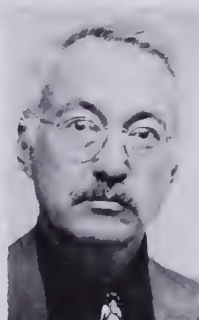
**Ginsburg, Barry Conrad, M.D.**, University of Alabama School of Medicine, 1974. Reciprocity with National Board of Medical Examiners. Location: Birmingham.



**Hettinger, Michael Eugene, M.D.**, University of Tennessee College of Medicine, 1974. Reciprocity with National Board of Medical Examiners. Location: Birmingham.



**Fabianke, Raynard George, M.D.**, University of Texas Medical School, 1975. Reciprocity with National Board of Medical Examiners. Location: Huntsville.



**Golden, Jules Samler, M.D.**, Long Island College of Medicine, 1948. Reciprocity with National Board of Medical Examiners. Specialty: Neuropsychiatry. Location: Mobile.



**Hillyer, Roderic Wayne, M.D.**, University of Alabama School of Medicine, 1974. Reciprocity with National Board of Medical Examiners. Location: Birmingham.



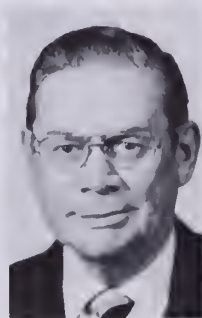
**Ferguson, Susan Marie, M.D.**, University of Alabama School of Medicine, 1975. Reciprocity with National Board of Medical Examiners. Location: Birmingham.



**Harmon, Joseph Michael, M.D.**, North Carolina School of Medicine, 1970. Reciprocity with North Carolina. Specialty: Pathology. Location: Ft. Rucker.



**Holley, Roderic Lynn, M.D.**, University of Alabama School of Medicine, 1974. Reciprocity with National Board of Medical Examiners. Location: Birmingham.



**Flanagan, James Brierton, M.D.**, University of Illinois College of Medicine, 1941. Reciprocity with Illinois. Specialty: OB/GYN. Location: University.



**Hawley, Lawrence Scott, M.D.**, University of Alabama School of Medicine, 1975. Reciprocity with National Board of Medical Examiners. Location: Mobile.



**Hollingsworth, Uel Franklin, M.D.**, University of Alabama School of Medicine, 1974. Reciprocity with National Board of Medical Examiners. Location: Birmingham.





**Houston, Joseph Samuel, M.D.**, Medical College of Georgia, 1959. Reciprocity with Georgia. Specialty: Psychiatry & Neurology. Location: Dothan.



**Jehle, Judi Ann, M.D.**, University of Alabama School of Medicine, 1975. State Board Exam.



**Kamplain, James Mates, M.D.**, Indiana University School of Medicine, 1975. Reciprocity with Indiana (FLEX). Location: Birmingham.



**Hunter, Charles Boyette, M.D.**, University of Alabama School of Medicine, 1973. Reciprocity with National Board of Medical Examiners. Specialty: Pediatrics. Location: Mobile.



**Jocson, Miguel Lasa, M.D.**, University of East Ramon Medical Center (Philippines), 1965. Reciprocity with Virginia (FLEX). Specialty: Orthopaedic Surgery.



**Katholi, Richard Evers, M.D.**, University of Virginia School of Medicine, 1969. Reciprocity with Virginia. Specialty: Internal Medicine & Cardiology. Location: Birmingham.



**Hyland, Caryl Herbert, M.D.**, University of Alabama School of Medicine, 1974. Reciprocity with National Board of Medical Examiners. Location: Birmingham.



**Johnston, William Henry, Jr., M.D.**, University of Alabama School of Medicine, 1974. Reciprocity with National Board of Medical Examiners. Location: Birmingham.



**Killion, Wayne Worden, Jr., M.D.**, University of Alabama School of Medicine, 1975. Reciprocity with National Board of Medical Examiners. Location: Mobile.



**James, Alton Britt, M.D.**, University of Alabama School of Medicine, 1975. Reciprocity with National Board of Medical Examiners. Location: Mobile.



**Joseph, Philmore Josley, M.D.**, University of Texas Southwestern Medical School, 1971. Reciprocity with Texas. Specialty: Orthopaedic Surgery. Location: Langdale.



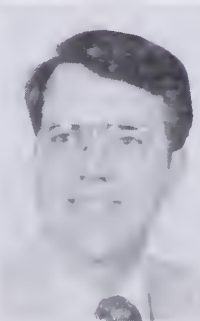
**Kinglsey, John Raymond, M.D.**, University of Florida College of Medicine, 1970. Reciprocity with Florida. Specialty: General & Vascular Surgery. Location: Pensacola.



**Janovski, Nikolas A., M.D.**, Innsbruck University (Austria), 1950. Reciprocity with Illinois. Specialty: Anatomical Pathology. Location: Evergreen and Montgomery.



**Kamath, Arvind Pandurang, M.D.**, Bombay University (India), 1972. Reciprocity with District of Columbia (FLEX). Specialty: Internal Medicine. Location: Langdale.



**Voelkel, Paul Brown, M.D.**, University of Maryland School of Medicine, 1969. Reciprocity with Maryland. Specialty: Radiology. Location: Auburn-Opelika.



## Physicians' placement service in Alabama

*The Medical Association of the State of Alabama maintains the Physicians' Placement as a service to the medical profession in the state of Alabama. Opportunities for practice in Alabama will be published and will be distributed to physicians making inquiry. Physicians wishing to establish practice are invited to submit a resume to be kept on file with the Association. For further information write to: Mr. Emmett Wyatt, Executive Assistant, Medical Association of the State of Alabama, P. O. Box 1900-C, Montgomery, Alabama 36104, or Telephone 263-6441.*

### LOCATIONS WANTED

*(Physicians interested in locating in Alabama)*

**General Practice:** Age 51; National University 1956; seeking solo, Emergency room or public health. LW-03372.

**Internal Medicine-Emergency Medicine:** Age 29, Medical College of Alabama 1972; National Board certified; American Board eligible; seeking emergency room, industrial, or multi-specialty group. LW - 03382

**Obstetrics & Gynecology:** Age 34; University of Oregon 1968; American Board Eligible; seeking single specialty group. Available September 1976. LW-10.

**Orthopedic Surgery:** Age 42; University of Washington 1962; American Board certified; seeking solo or limited partnership, preferably near Gulf Coast, 100,000 plus population Available December 1976. LW-1.

**PATHOLOGY:** Age 29; Univ. of Michigan 1972; National Board; seeking Assistant or Associate or Institutional. Available December 1976. LW-02.

**SURGERY:** Age 41; Univ. of Ottawa 1963; American Board Certified; seeking Associate; Available September 1976. LW-03.

**Surgery/General Practice:** Age 31; University of Florida 1971; Will be American Board Eligible 1976; seeking partnership, single specialty group or multi-specialty group. Available July 1977. LW-01589.

**Emergency Medicine — General Practice:** Age 27, Indiana University 1975; seeking Emergency Room, Multi-Specialty Group, or Single Specialty Group. Available July 1976. LW 03613.

**General Practice — Surgery:** Age 43, Cairo University 1955; seeking Institutional, Multi-Specialty Group, Solo, or Partnership. Available August 1976. LW 03501.

**General Practice — Emergency Medicine:** Age 35, University of Toronto 1966; seeking Administrative, Solo, or Emergency Room. Available September 1976. LW 04811.

**Orthopedic Surgery:** Age 28; Emory University 1973; American Board Certified; seeking Single Specialty Group. Available July 1977. LW 15.

**Surgery:** Age 54; American Board Certified; Columbia 1948; seeking Associate, Single Specialty Group, or Academic. Available November 1976. LW 16.

**Urology:** Age 31, University of Mississippi 1970; American Board Eligible; seeking Single Specialty Group. Available July 1977. LW 17.

Sophomore Medical Student — age 22, interested in a town or hospital assisting with medical school costs in return for service there in general/family practice. Available 1980. LW-01.

### PHYSICIANS WANTED

*(Opportunities For Practice)*

**Internist & Family Physician** — Opportunity available for an Internist and a Family Physician in a community 10 miles north of Mobile. Excellent growth potential. Financial assistance available. Abundant outdoor activities (10 miles from golf). PW-15.

Physicians wanted (**General Internal Medicine, Gastrologist, Dermatologist**) Trade area, 400,000 population. Population of town: 45,000, located in Northeast Alabama. Small town advantages with big city conveniences within an hour's drive. Ground floor professional opportunity to join a group of internists in the development of programs in General Internal Medicine, medical specialties, and disciplines appropriate for the establishment of a multispecialty health clinic. Financial arrangements negotiable. No investment necessary. Opportunity for partnership in two years. PW-8

A community with combined population of 10,000 located near Mobile, Alabama is seeking a **general practitioner**. Office space available with living quarters. Several churches and schools. PW-9

**ASSOCIATE UNIVERSITY PHYSICIAN**—Immediate opening. Staff of nine physicians. Comprehensive practice for 16,000 students. Delightful University town. Tuscaloosa, Alabama. Competitive salary and excellent fringes, including liability insurance. Alabama licensure. BNDD required. PW-10.

**EMERGENCY PHYSICIAN**—60,000 and over, fee for service, 45 hour week, paid basic malpractice, life convention expenses; modern E.R., Urban advantage. PW-12.

**General Practitioner's** 2 family physicians wanted for general practice in a 64-bed hospital, located between North Alabama towns (in the heart of the Tennessee Valley) with a trade population of 18,000. Office space available. Within 35 miles of large city. Large amount of industrial work in our area. PW-7

**WANTED—General Internist** or Subspecialist with interest in general medicine. University town, population approximately 60,000, to join 4 other internists in a multi-specialty clinic setting; 250-bed expanding general hospital; specialty coverage, office expansion in progress; attractive living area. PW-11

Opportunity for **General Practitioner** in town of 10,000 population; trade area 30,000 population located in east Alabama within short distance of hospitals. One and two dentists presently in the town. Agricultural and industrial area. PW-3.



Opportunity for **General Practitioner** in town of 3,000 population; trade area 16,000 population located in south-east Alabama, within short distance of city of 35,000 population where there are two hospitals. Located 85 miles from Gulf Coast beaches. Office space and equipment available. Last physician in town died two years ago. Industrial and farming area. Churches, schools and recreational activities. PW-2.

**General Practitioner** Opportunity in central Alabama town of 5,000 population, with a trade area of 30,000 population. Located 30 miles east of Montgomery, Alabama, and 28 miles west of Auburn University. Adjacent to Lake Martin. A new 77-bed hospital with a new Medical Arts Complex adjoining with office space available. Guaranteed income for a General Practitioner or Family Physician. PW-4.

Full-time Faculty Position. Board Certified **Family Physician** to teach/practice in new and growing medical school. Teach family practice residents/medical students. Competitive salary/fringe benefits. An affirmative action/equal employment opportunity employer. PW-5.

**General Surgeon** needed in progressive rural community of about 1,000 people with trade area of 20,000, for 36-bed, joint commission approved hospital. Located in East Central Alabama, within 90 miles of Atlanta, 100 miles of Montgomery and Birmingham, and within 20 minutes of I-20. Guaranteed office space with rent to be worked out. Interested parties and their families are invited to visit with expenses paid. PW-13/1.

**GENERAL PRACTITIONER** needed in progressive rural community of about 1,000 people with trade area of 20,000, for 36 bed, joint commission approved hospital located in East Central Alabama, within 90 miles of Atlanta, 100 miles of Montgomery and Birmingham, and within 20 minutes of I-20. Guaranteed office space with rent to be worked out. Interested parties and their families are invited to visit with expenses paid. PW-13

**GENERAL PRACTITIONERS** wanted to locate in central Alabama town with 17,000 population and a trade area of 35,000 population. Good 68 bed hospital, located near large city with specialty consultants available. Excellent fishing, camping, hunting, golf and schools. Excellent location to raise a family and practice medicine. Healthy stable economy. On call days only, nights and weekends covered. Office suites available rent free for the first 12 months, also other financial assistance available; including moving expenses, also interested parties can be offered invitations to visit with expenses paid. PW-11. ■

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## AROUND THE STATE



### Necrology

William Bruce Mitchell, M.D.  
1913-1976

Dr. William Bruce Mitchell, 63, who practiced medicine in Anniston for more than 30 years, passed away April of this year following an extended illness. He was a general practitioner and surgeon until ill health forced him several years ago to concentrate on office practice alone.

Dr. Mitchell had been chief of staff at the old Anniston Memorial Hospital and was an active staff member at the Regional Medical Center.

Born in Waycross, Georgia, Dr. Mitchell graduated from the University of Georgia School of Medicine, served as a field surgeon in the U. S. Army Paratroopers during W.W. II and completed post-graduate work in orthopedics at Johns Hopkins University.

Thomas Quincy Harbour, M.D.  
1898 - 1976

Dr. Thomas Quincy Harbour, Ashville family physician, passed away Monday, August 9, at his residence after a sudden illness. He was 78 years of age.

A native of Etowah County, Dr. Harbour attended the University of Alabama and graduated from Tulane University Medical School. Dr. Harbour was retired from the U. S. Navy as a captain in the Naval Medical Corps and served in World War I, World War II, and the Korean Conflict. In 1974, Dr. Harbour became a member of MASA's Fifty Year Club.

Survivors include his wife, a son and daughter.

Claud D. Johnson, M.D.  
1909 - 1976

Dr. Claud D. Johnson, Montgomery obstetrician-gynecologist, passed away Wednesday, August 18, in a Montgomery hospital after an extended illness. Dr. Johnson was 67 years of age.

A native of Brundidge, Dr. Johnson opened his practice in Montgomery in 1938. He was one of the founders of Jackson Hospital where he had practiced obstetrics-gynecology since 1949.

At Vanderbilt University in 1934, Dr. Johnson along with the late Dr. E. W. Goodpasture proved that mumps is due to a filtrable virus rather than a bacteria as previously believed. This discovery led to the development of a mumps vaccine approved in 1968 by the U. S. Public Health Service. ■

## Auxiliary

Mrs. George F. Scofield  
President

### FOCUS ON FAMILY FITNESS



Good health begins at home, and the health of a doctor's family is no exception. If the old adage "the shoemaker's children have no shoes" is true, then we must make a double effort to see that our families enjoy good total health. This is a state of physical, mental, emotional, and social well-being, and not just the absence of disease.

"Focus on Family Fitness" was the emphasis for the Auxiliary's Fall Conference held September 22-23 at the Sheraton Inn, Mountain Brook in Birmingham. Dr. James Sharman, Chairman of the Department of Health and Recreation, UAB, began the Conference at the 7:00 p.m. dinner meeting presenting his program on "Fitness For Life." He said "Health is our most important single possession. We should spend more time improving our health in order to enjoy life more when we retire."

Food is of primary importance to every family and the provider of three meals a day is often uncertain as to just what encompasses good nutrition. Dr. Roland Weinsier, Assistant Professor of Medicine, Head Clinical Nutrition Section, UAB School of Medicine, spoke

Thursday morning on "Feeding the Family". He outlined the three food movements of our generation: quick weight loss, health foods and natural foods.

A growing health hazard to women and teenagers is the abuse of alcohol. Alcohol is now called by some the number one drug problem, so it was appropriate that we heard from Jim Baker, Director of the Regional Council on Alcoholism. "Alcoholism, a Family Disease" was his topic.

"Man does not live by bread alone," nor does the absence of infirmity make for a good life. Dr. Truman Tharpe, Assistant Director of Admissions, UAB Medical School, spoke at the luncheon session. Her title was "For Better, Not for Worse." Dr. Tharpe's speech will be reprinted in a later issue.

The Thursday afternoon session was called "A Matter of Life or Death." Of increasing concern to all citizens is the learning of life-saving techniques. We are told that one person out of every family of four will experience a medical emergency during the next year. In many cases, it will be up to a family member, even a child, to save a life. Demonstrations of two techniques — CPR and the Heimlich maneuver — were given. These were presented by Mrs. Shannon Champion, Alabama Heart Association and Auxiliary Community Health Chairman.

Mrs. Charles Howell, Decatur, served as Conference Chairman. Eighty-one auxiliaries, doctors and guests participated. We feel that in educating ourselves we may then reach out and help our communities. ■

Pres.—Mrs. George F. Scofield/Pres.-Elect—Mrs. John Taylor/First Vice-Pres.—Mrs. Aubrey Terry/NE Vice-Pres.—Mrs. Eugene H. Bradley/SE Vice-Pres.—Mrs. Rufus Lee/Vice Pres.—Mrs. William P. Basoon/NW Vice-Pres.—Mrs. Wilfred Yeargan/AMASA Editor—Mrs. William Smith.

### AMA-ERF DONATION FORM

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\_\_\_\_\_ In Honor Of \_\_\_\_\_ Donate to Alumni

Name of person to be honored \_\_\_\_\_

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Address of person to be notified \_\_\_\_\_

Designate one: \_\_\_\_\_ Name of Medical School

\_\_\_\_\_ Loan Guarantee Fund

\_\_\_\_\_ Divide among all schools

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Please make check payable to AMA-ERF Fund and mail to: AMA-ERF Auxiliary Fund

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## Digest of actions—State Committee of Public Health

*The State Committee of Public Health at its meeting on September 15, 1976, took the following actions:*

- Approved a Deputy Registrar for Dallas, Jefferson, Lee and Mobile Counties.
- Received official copy of Designation Agreement naming the Alabama State Board of Health as the State Health Planning and Development Agency.
- Received advisement of Governor Wallace's nomination of Dr. Leon C. Hamrick of Fairfield for consideration by IFW to serve on the National Council for Health Planning and Development.
- Approved the initial issuance of Assurances of Need for health facilities.
- Approved Wiregrass Nursing Home, Geneva, project for addition of 36 beds to existing facility.

## Digest of actions of the State Board of Censors

*The State Board of Censors at its regular meeting on September 15, 1976, took the following actions:*

- Approved the financial statement for the period ending August 31, 1976.
- Approved purchase of a renewal subscription for one year of the Network for Continuing Medical Education in the amount of \$1,580.00 for videocassette tapes.
- Approved request from Dr. Margaret Klapper that Dr. Bob Willis, Education Director, UAB Division of CME, be designated to attend the Fifth Biennial Conference on Continuing Medical Education as a MASA representative, expenses will be paid by UAB).
- Approved appointment of Dr. Lamar Miller of Dothan to replace Dr. George Hardy as MASA's representative to the Council on Health Care Costs, Administration and Organization, along with alternates Dr. Joe Sugg of Dothan and Dr. Jack Real of Dothan.
- Approved nomination of Dr. William L. Smith, Dr. Eugene Parker and Dr. Joe Benson for submission to the Governor for the appointment of one physician representative on the Board of Examiners of Nursing Home Administrators.
- Approved Quarterly Report of the Council on Medical Service.
- Instructed the Ad Hoc Committee on Emergency Medical Services to study the possibility of contacting the private school systems to solicit CPR training in the schools and at Dr. Wright contact the Alabama Hospital Association regarding a joint effort between MASA and AHA concerning the updating of CPR training for medical staff.
- Received as information letter of recommendation from the Medical Society of Mobile County regarding a statewide news release on length of hospitalization as it relates to Medicare/Medicaid Guidelines and instructed Communications Department to release same to news media across the state.
- Received as information the Quarterly Report of the Council on Public Affairs.
- Disapproved the request from Practice Productivity to place a 1/2-page ad in the October issue of the *Journal*.
- Directed that the Central Office staff (approx. 2 or 3 staff

- Approved proposal for 6 offices in the Medical Park near the Chattahoochee Valley Hospital Medical Park, Langdale.
- Concurred in a recommendation for adverse findings and disapproval of Wesley Manor, Dothan, for 78 beds as not consistent with the 1975-76 Alabama Master Hospital Plan.
- Directed that the license of Dothan Nursing Home, Inc., Dothan, be continued on a probational basis with a follow-up visit to be made in 90 days; that the license be reissued to reflect the decrease of 39 beds which have been discontinued for inpatient care; that the home be considered for certification as a provider in the Medicaid; and that formal charges relating to revocation of license be dismissed; and, further, concurred with the Hearing Officer in decertification of the nursing home effective September 30, 1976, which requires reapplication by the institution for participation in the Medicaid Program.
- Approved request of Comprehensive Cancer Center, UAB, program to be instituted under the sponsorship of Jefferson County Division of American Cancer Society to train patients who have recovered from serious cancer in order to serve as consultants and advocates for new patients during their early difficult struggles with potentially curable disease.
- Approved four Medicaid Plan Amendments implementing, as far as possible, recent State Legislative requirements.
- Deferred action on nursing home ceiling proposal for evaluation of alternatives and economic impact.
- Received information concerning some cost containment procedures which have been implemented in the Alabama Medicaid Program and reviewed the status of budget expenditures.
- Reviewed the nursing home fee bill, which has been prefiled for the next session, and called attention to the potentially disastrous effects of passage of the bill as submitted since it could endanger cost containment and the continuity of the Medicaid Program under existing Federal guidelines.
- Advised by legal counsel regarding suits involving the Committee and the Department of Public Health in its various capacities.
- Noted that Apomorphine had been removed from Schedule II by Federal action and was not opposed by the State Committee of Public Health.
- Approved update and technical modifications to regulations dealing with radiation based on recommendations from the Radiation Advisory Board of Health. ■

members) attend the two-day seminar on practice management being conducted by the AMA for Mobile County which contains two parts — general office management and collections management — to be held November 10-11, 1976, and report back to the Association as to the feasibility of such a program offered by the AMA on a statewide basis.

- Received as information a copy of PL 94-380, the National Swine Flu Immunization Program of 1976.
- Received as information programs for the Diabetes Mellitus Conference to be held at Lake Guntersville on September 17-18, and Gulf Shores on October 1-2.
- Received as information a report on the institution and organizations approved by the AMA for CME accreditation.

# Accreditation And Change In Medical Education...

By G. GAYLE STEPHENS, M.D.

**THE** importance of accreditation for medical schools is quite clear. Graduates of unaccredited schools would be unable to obtain a license to practice in the U.S. Accreditation in the U.S. is the responsibility of a national committee known as the Liaison Committee on Medical Education (LCME). Members are appointed to the LCME mainly from two parent bodies, the Council on Medical Education of the AMA and the Association of American Medical Colleges. The LCME meets regularly to consider applications from new and developing schools and to periodically review the status of existing schools. The committee is assisted in its work by a paid staff headed by the Executive Secretary who alternates yearly between the AMA and AAMC. In addition the LCME appoints teams of consultants on an *ad hoc* basis to visit medical schools to conduct accreditation surveys. Consultants file written reports of their surveys which are reviewed and acted on by the entire LCME.

The University of Alabama School of Medicine and its two clinical components at Huntsville and Tuscaloosa were surveyed in 1975. While full accreditation status was granted for 3 years there were two recommendations of special importance for the Huntsville and Tuscaloosa campuses. The first was to limit the number of students per class to 22 and 12 respectively and the second was to require that all students receive 6 months of clinical education in Birmingham before transfer to Huntsville or Tuscaloosa. Both recommendations have a negative influence on the Huntsville program, and I feel strongly that neither was based on program deficits. The first recommendation will prevent us from being cost-effective and the second reduces our program to a maximum of 15 months and, in view of the fact that most senior medical students choose electives in multiple locations, subverts the continuity elements in our curriculum.

There is no doubt that the new programs in Huntsville and Tuscaloosa came into being because of a perceived need for changing the outcome of medical education in Alabama—i.e., a need for more students and for more graduates to enter family practice. Experiencing the process of accreditation shows how difficult it is to change. New schools and programs are always compared to a standard of existing schools, so accreditation is inherently a conservative process—which seems right and proper up to a point. But the paradox is

that if everything was all right with the existing schools there might be no need for new ones.

**THE SCHOOL OF MEDICINE** is now submitting year's progress report to the LCME and after this reviewed we expect a visit from the LCME staff. The following statement is taken from my contribution to the progress report. It was written originally in the form of a letter to C. W. Scott, Deputy Dean, UA who is coordinating the whole document. While it is not possible to include all the letter or any of the supporting appendices in this Dean's Report, I wish to share the main points with the readers on the *MAJ Journal* because they are pertinent to many issues now facing us in medical education in the State.

Here's what I'd like the LCME to know about the School of Primary Medical Care:

**Item 1. The medical student program is operational.** The first twenty (20) students were assigned here for the first time in September 1974 and nineteen (19) were graduated by the University of Alabama School of Medicine in May 1976. These students all passed the Part II NBME exam with three of them having exceptionally high total scores (740, 700, 640). Three of the nineteen students were accepted into our own family practice residency.

There are now eighteen (18) students who are completing the junior year and we expect to register sixteen new students in the Fall of 1976.

**Item 2. The academic climate in Huntsville is appropriate and continues to mature.** We think of ourselves increasingly as a teaching center. Patients are being referred to Huntsville who formerly would have gone to other cities. There are fifty (50) new physicians in Huntsville since 1973. Huntsville Hospital has added new clinical programs in neonatology, nephrology and a 15 million dollar expansion is in the final planning stages.

We have a regular clinical conference program in which all practicing physicians are invited. The School has sponsored ten (ten) continuing education courses in the past two years.

**Item 3. The clinical facilities of SPMC are excellent.** Our Ambulatory Care Center, across the street from Huntsville Hospital, has 52,000 gross square feet containing clinics, faculty offices, classrooms and administrative offices. In addition to the family practice clinic, we have consultation clinics in pediatrics, medicine, psychiatry and OB/GYN. We have a first rate X-ray department and clinical laboratory as well as support services in medical social service and nutrition.

We have received bids on a new Clinical Science Center which will contain 24,000 square feet devoted to faculty offices and laboratories, a student center, lecture room, expanded library, continuing education and Deans' Offices.

**Item 4. The financial status of the School is good for the present size of the program.** State appropriations have been increased each year until 1976-77 when they level out. We have been successful in securing more than 1.5 million dollars in grants and will generate another \$300,000 from other sources.



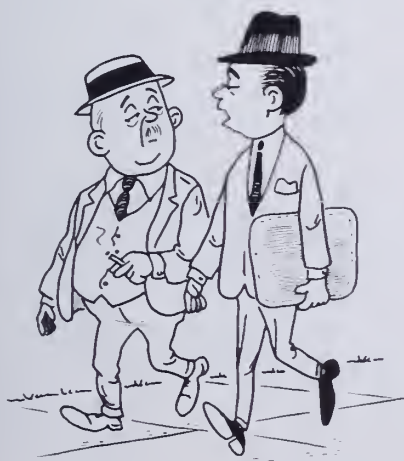
tem 5. Governance of medical education in Huntsville is coordinated with Birmingham and Tuscaloosa. There are monthly meetings in Birmingham at the Deans' level. There is a great deal of faculty traffic in both directions. The Birmingham faculty have been most supportive in coming for lectures and clinical conferences.

tem 6. We are quite concerned about the limitation of students to twenty-two per class and a requirement that students spend six (6) months in Birmingham as seniors before transfer to Huntsville. If our program is adequate for 22 students per class (which we believe it is), it is adequate for 35, which is a number that would make it cost-effective. To make our paid faculty stable and to recruit effectively, we need to have full-time faculty in each of the major departments. We know we have been hurt in our recruiting by the ME constraints.

The six-month requirement is logistically difficult, disruptive to student lives, and ideologically contrary to the relative strengths of Huntsville and Birmingham. We are trying to provide longitudinal learning experience for our students which simply cannot be accomplished by block time assignments of 4-12 weeks.

tem 7. The future at Huntsville looks bright if we get the consent to continue as a clinical branch. We are working together as a community and we know what we can do. We will develop residencies in pediatrics, OB/GYN and internal medicine as rapidly as we can. We expect the family practice residency to expand to 36 residents in Huntsville and to develop affiliated programs in the region for another 36. (One approved affiliate already exists at Anniston).

The State of Alabama has a great deal riding on the success of this program. We have made it work and anything less than a clinical branch would now be an inappropriate outcome for the money and human effort that has been invested. ■



"We have an incentive plan where I work too — Anyone who meets his quota gets to keep his job."

## ALABAMA DEPARTMENT OF PUBLIC HEALTH

### CURRENT MORBIDITY STATISTICS

	Aug.	Sept.	*E.E. Sept.
Tuberculosis	60	73	84
Syphilis	37	32	43
Gonorrhea	1,939	2,011	1,074
Chancroid	0	0	0
Typhoid fever	0	1	2
Salmonella	51	42	38
Undulant fever	0	0	0
Shigella	8	4	12
Amebic dysentery	0	0	0
Scarlet fever & strep. throat	386	335	480
Diphtheria	0	0	2
Whooping cough	0	1	4
Meningitis	21	9	5
Tularemia	0	0	0
Tetanus	0	0	1
Poliomyelitis	0	0	0
Encephalitis	7	10	0
Smallpox	0	0	0
Measles	0	0	3
German measles	0	0	3
Chickenpox	1	1	4
Mumps	11	11	9
Hepatitis	45	38	40
Typhus fever	0	0	0
Rocky Mt. spotted fever	4	2	2
Malaria	0	1	1
Rheumatic fever	0	0	6
Rheumatic heart	25	8	15
Influenza	13	10	22
Pneumonia	166	201	183
Rabies - Human cases	0	0	0
Pos. animal heads	3	6	0

As reported by physicians and including deaths not reported as cases. \*E.E.—The estimated expectancy represents the median incidence of the past nine years.

### GONORRHEA—September, 1976

Total Female Specimens.....	22,604
Positive Cultures .....	1,174
Positive .....	5.2%
Submitted from Private Practice .....	12,680
Positive Cultures .....	334
Positive .....	2.7%

*DARKFIELD MICROSCOPY is available to physicians at no cost by calling 832-3205 collect at any time. A technician and equipment will be dispatched to your office.*

# Bureau of Preventable Diseases

FREDERICK S. WOLF, M.D., DIRECTOR

## SWINE FLU

The Alabama Influenza Immunization Program has been underway since October 1st. Vaccine is being made available to the public in mass clinics which are scheduled for specific days according to county throughout the months of October and November. Vaccine is also available to private physicians, hospitals, and nursing homes through their local county health department. Table 1 gives a summary of the recommended influenza immunization schedule by age group and risk category.

Both monovalent and bivalent vaccine are available through the county health department. The reference to monovalent B vaccine refers to monovalent B/Hong Kong which is available through commercial channels. High risk is defined as persons over 65 years of age or persons who have chronic debilitating illnesses such as chronic bronchial pulmonary disease, chronic heart disease, chronic kidney disease, chronic metabolic disorders such as diabetes, malignancy, immunosuppressed state or chronic neuromuscular disorders. More details on the recommendations can be found by reviewing the past several issues of *The Alabama MD*.

In addition to carrying out the Influenza Immunization Campaign, the Bureau of Preventable Diseases is carrying on an active surveillance system for outbreaks of influenza. This surveillance system includes a sentinel system in each of 10 cities throughout the State. In each of these cities, there is a sentinel physician, a sentinel hospital, a sentinel industry, and a sentinel school. In addition to the sentinel system, we would appreciate reports from physicians of any suspect cases of influenza.

The Bureau is also undertaking a surveillance system for monitoring reactions to influenza vaccine. A random sample questionnaire survey of those receiving vaccine will be carried out. As a supplement to the survey, the Bureau encourages physicians to report any possible vaccine reactions. This may enable us to detect any lots of vaccine which might have an unusually high reaction rate. Reports should be telephoned to 832-3207.

## ST. LOUIS ENCEPHALITIS

St. Louis Encephalitis is widespread throughout the State of Alabama again this year. Fortunately, we seem to have fewer cases than we did last year. While last year most of the cases were concentrated in Jefferson County, this year the largest concentrations of cases appear to be in Tuscaloosa and Mobile. Thus far, Jefferson County has had only two presumptive cases. In addition to the concentrations in Tuscaloosa and Mobile, other confirmed and presumptive cases are scattered throughout the State. As of October 5th, we have 23 confirmed and 21 presumptive cases in

Alabama. Of these, 13 confirmed and 13 presumptive are in Tuscaloosa. Six confirmed and five presumptive are in Mobile. Confirmed and presumptive cases may also be found in Montgomery, Selma, Birmingham, Reform, and Capshaw.

The only control measure for St. Louis Encephalitis is control of the vector, *Culex* mosquitoes. We believe we have seen some effect from increased control measures in Jefferson County over the past year and from increased control measures in Tuscaloosa where the epidemic seems to have been terminated in early August after a stepped-up adulticiding and larviciding campaign. The Bureau of Preventable Diseases continues to monitor the State for additional cases of St. Louis Encephalitis, and we would appreciate a report of any suspect cases.

## BOTULISM IN INFANTS

Over the last 18 months, five cases of botulism have been reported in infants, all less than three months of age (one in New Jersey, four in California). Since three cases were type B and two type A, a common vehicle is unlikely. This may suggest that botulism in this age group may be more common than previously recognized. One hypothesis of the pathogenesis of botulism in infants is that in vivo germination of ingested botulinum spores resulted in the production of toxin in the infants' intestines. These spores are virtually ubiquitous and are heat resistant. Thus, even well-cooked food may contain viable *C. botulinum* spores.

Physicians should consider botulism in infants with unexplained weakness, ophthalmoplegia, dysphagia, respiratory arrest. In the four cases in which measurement was performed, botulinum toxin was found in stool but not in the serum. In addition, all five cases were positive for *Clostridium botulinum* on stool culture.

A typical case is represented by a five-week-old infant from California who became ill last February. The previously well infant developed constipation, irritability and weakness, first manifested by diminished crying and sucking. This was followed over the next several days by loss of neck and limb strength and neurological impairment, including ptosis, sluggish pupillary light reaction, facial weakness, and poor anal sphincter tone. Treatment was primarily supportive. Antibiotics were administered but antitoxin was not. The infant recovered completely and on follow-up had no neurological deficits. Botulinum toxin and organisms continued to be present in the stool specimens for eight weeks after complete clinical recovery.

In view of the fact that stool specimens continued to be positive for eight weeks, the mechanism of recovery is obscure. Antibodies to botulinum toxin have not been measured to determine if humoral immunity can contribute to recovery. *C. botulinum* organisms may ultimately be eliminated by competition produced by other bacterial flora. ■



# Continuing Medical Education

## RENAL DISEASE AND ELECTROLYTES

(Fill in only one answer for each question.)

Directions Summarized

	B	C	D	E
3	1,3	2,4	4	All are
y	only	only	only	correct

Patients who have ingested large quantities (7 to 8 kg) of phenacetin over a period of many years

1. have a high incidence of abnormal renal function
2. often have renal papillary necrosis
3. frequently have round cell infiltration and fibrosis in the renal parenchyma
4. often have proliferative glomerulitis on kidney biopsy

A 54-year-old woman was admitted to the hospital in a confused state.

Laboratory studies:

Serum electrolytes:

Sodium	140 mEq/l
Potassium	5.9 mEq/l
Chloride	105 mEq/l
Total CO <sub>2</sub> content	10 mEq/l

Blood pH 7.16

These laboratory findings are consistent with a possible diagnosis of

1. chronic renal failure
2. diabetic ketoacidosis
3. lactic acidosis
4. ethylene glycol poisoning

A patient (blood type O, Rh positive) with severe oliguria (less than 100 ml urine/24 hr) is examined 10 days after transfusion with two units of type A, Rh positive blood. Which of the following laboratory data are compatible with a diagnosis of acute tubular necrosis secondary to hemolytic transfusion reaction?

1. Serum potassium 7.1 mEq/l; serum calcium 7.9 mg/100 ml
2. Serum creatinine 11 ml; urine specific gravity 1.010
3. Serum anti-A agglutinin titer 1:1056
4. Serum sodium 147 mEq/l; serum bicarbonate 42 mEq/l

Patients with the idiopathic nephrotic syndrome, when subjected to renal biopsy, can be divided into three groups: those whose biopsies show (a) minimal changes on light microscopy, (b) predominantly proliferative changes, or (c) predominantly membranous changes. Compared with the other two groups, patients whose biopsies show minimal changes.

1. more frequently show response to corticosteroid therapy as indicated by elimination of proteinuria
2. less frequently have deposition of complement and gamma globulin in the glomeruli
3. have the best long-term prognosis
4. most often develop progressive renal failure

5. An impaired ability to excrete an orally administered water load is associated with
  1. adrenal insufficiency
  2. portal cirrhosis with ascites
  3. anterior pituitary insufficiency
  4. Cushing's syndrome
6. Respiratory alkalosis is a known complication of
  1. gram-negative septicemia
  2. advanced hepatic failure
  3. chronic interstitial pulmonary fibrosis
  4. acute pulmonary embolism
7. In adults with chronic glomerulonephritis,
  1. hypertension usually develops when renal function has shown some deterioration
  2. there may be a history of the nephrotic syndrome
  3. there may be a history of acute glomerulonephritis
  4. there may be a history of prolonged proteinuria
8. A patient is edematous, azotemic and mildly acidotic. Serum sodium concentration is 135 mEq/l. Which of the following might occur during hypertonic peritoneal dialysis with a solution containing glucose, 7 gm/100 ml and sodium, 135 mEq/l?
  1. Hyperosmolar coma
  2. Plasma volume contraction
  3. Negative sodium balance
  4. Hypotension
9. A man brings a urine sample to his physician for analysis. The color of the urine is dark brown to black. The differential diagnosis should include
  1. malignant melanoma
  2. methyldopa ingestion
  3. ochronosis
  4. excessive beet ingestion
10. Which of the following is/are commonly seen in patients with chronic atrophic pyelonephritis, with azotemia, but without hypertension?
  1. Hyperchloremic acidosis with moderate hyperkalemia
  2. Hypercalcemia with elevated serum inorganic phosphorus
  3. Severe renal concentrating defect, at times being unable to concentrate urine even to a specific gravity of 1.010, or to an osmolality of 300 mOsm
  4. Tendency toward sodium retention when dietary salt intake is increased
11. Diminished ability to produce concentrated urine after water deprivation may result from
  1. hypercalcemia
  2. psychogenic polydipsia
  3. hypothalamic lesions involving the neurohypophysis
  4. use of ethacrynic acid (Edecrin)

### CORRECT ANSWERS

4. A	8. E	11. E
3. A	7. E	10. B
2. E	6. E	9. B
1. A	5. A	

## COURSE ANNOUNCEMENT

The Seventh Annual Conference on the Immunopathology of the Skin will be given May 26-28, 1977, by the Departments of Microbiology and Dermatology, University of New York at Buffalo at the Sheraton East in Buffalo, New York.

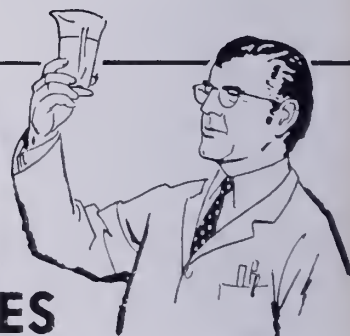
The first part of this conference on May 26th and 27th on "Immunopathology of the Skin for Practicing Clinicians" is designed primarily to afford practitioners a basic understanding of recent advances in the field and to enable them to utilize present knowledge of this subject in their practice. Registration fee is \$95.00. For further information on registration write to Mrs. Gloria Griffin, 219 Sherman Hall, SUNY/B, Buffalo, New York 14214.

The second part of this conference which is scheduled for May 28, 1977, will be a workshop for laboratory workers interested in presenting their own findings on the immunopathology of the skin and related problems. Titles for this workshop should be submitted before January 31, 1977 to Dr. Ernst H. Beutner at the Department of Microbiology, Sherman Hall, SUNY/B, Buffalo, New York 14214. ■

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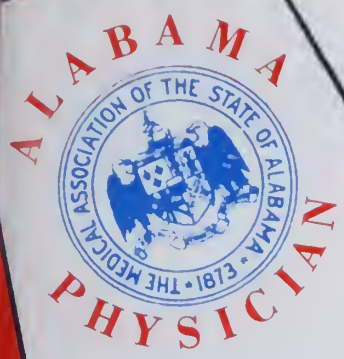
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# JOURNAL

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*Vol 46 #5*

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*M.D.S.* ✓



**Child  
Abuse:  
Scourge  
of  
Society**

# Both often



Predominant  
psychoneurotic  
anxiety

Associated  
depressive  
symptoms

**Before prescribing, please consult complete product information, a summary of which follows:**

**Indications:** Tension and anxiety states; somatic complaints which are concomitants of emotional factors; psychoneurotic states manifested by tension, anxiety, apprehension, fatigue, depressive symptoms or agitation; symptomatic relief of acute agitation, tremor, delirium tremens and hallucinosis due to acute alcohol withdrawal; adjunctively in skeletal muscle spasm due to reflex spasm to local pathology, spasticity caused by upper motor

neuron disorders, athetosis, stiff-man syndrome, convulsive disorders (not for sole therapy).

**Contraindicated:** Known hypersensitivity to the drug. Children under 6 months of age. Acute narrow angle glaucoma; may be used in patients with open angle glaucoma who are receiving appropriate therapy.

**Warnings:** Not of value in psychotic patients. Caution against hazardous occupations requiring complete mental alertness. When used adjunctively in convulsive dis-

orders, possibility of increase in frequency and/or severity of grand mal seizures may require increased dosage of standard anti-convulsant medication; abrupt withdrawal may be associated with temporary increase in frequency and/or severity of seizures. Advise against simultaneous ingestion of alcohol and other CNS depressants. Withdrawal symptoms (similar to those with barbiturates and alcohol) have occurred following abrupt discontinuance (convulsions, tremor, abdominal and muscle cramps, vomiting and sweating). Keep addiction-prone individuals under careful



# respond to one

According to her major symptoms, she is a psychoneurotic patient with severe anxiety. But according to the description she gives of her feelings, part of the problem may sound like depression. This is because her problem, although primarily one of excessive anxiety, is often accompanied by depressive symptomatology. Valium (diazepam) can provide relief for both—as the excessive anxiety is relieved, the depressive symptoms associated with it are also often relieved.

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in psychoneurotic  
anxiety states  
with associated  
depressive symptoms

surveillance because of their predisposition to habituation and dependence. In pregnancy, lactation or women of child-bearing age, weigh potential benefit against possible hazard.

**Precautions:** If combined with other psychotropics or anticonvulsants, consider carefully pharmacology of agents employed; drugs such as phenothiazines, narcotics, barbiturates, MAO inhibitors and other antidepressants may potentiate its action. Usual precautions indicated in patients severely depressed, or with latent depression, or with suicidal tendencies.

Observe usual precautions in impaired renal or hepatic function. Limit dosage to smallest effective amount in elderly and debilitated to preclude ataxia or oversedation.

**Side Effects:** Drowsiness, confusion, diplopia, hypotension, changes in libido, nausea, fatigue, depression, dysarthria, jaundice, skin rash, ataxia, constipation, headache, incontinence, changes in salivation, slurred speech, tremor, vertigo, urinary retention, blurred vision. Paradoxical reactions such as acute hyperexcited states, anxiety, hallucinations, increased muscle

spasticity, insomnia, rage, sleep disturbances, stimulation have been reported; should these occur, discontinue drug. Isolated reports of neutropenia, jaundice; periodic blood counts and liver function tests advisable during long-term therapy.



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## ABOUT THE COVER

The JOURNAL wishes to thank Alice Hyde, artist over at the State Department of Public Health, for her contribution this month to the front cover. Her talents have also been displayed recently on the front covers of the June, 1976, and September, 1976, issues.





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CHRISTMAS, 1976, is fast upon us and within a matter of weeks, we will be entering the first year of our Trienium as a Nation. As for MASA, the New Year should be a busy one indeed: district caucus meetings; the Annual Meeting in Mobile; new cme programs as planned by the Medical Education Council; and development of virgin territory with an expanded public relations outreach.

Also, the Alabama Legislature convenes again in early 1977 and *The Alabama M.D.* and the *Journal* will be there to keep MASA members "tuned-in" to the latest issues that affect their practice and their patients.

The *Journal* begins this month with a feature on the final page of this issue which we at MASA Headquarters hope you will find to be of real interest and input to your and your practice. Each month, it will feature hard-hitting, factual news briefs from the medical profession. It will be crisp, fast-paced.

It will be "your page", and we hope that you will let us know what you think about it. Tell us how we may improve; tell us if you find it worthwhile and relative. Only in this way will we be able to know for sure if we are on the right track. Let us know so that we may better equip ourselves to meet your needs.

\* \* \*

MASA's Annual awards for 1977 are receiving more attention this year and over 300 notices to county societies, allied health organizations and the news media have been mailed from MASA Headquarters. The Awards are: the Gorgas Award, the Word Award, the Sanders Award and the Cannon Award. Last year saw a record number of 18 applications received for these four awards, the highest MASA can give. All county societies are urged to consider the merit of these awards and submit praise-worthy recommendations. Deadline for making nominations is December 31, 1976.

\* \* \*

Final note: Alabama Controlled Substances Registration Certificates will be issued by January 1, 1977 by the Alabama State Board of Medical Examiners. Make sure your application is in!

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**Warnings.** *Usage in Pregnancy:* Reproduction studies have been performed in animals and there was no evidence of propensity for harm to the fetus. The relevance to the human is not known.

There is no experience in pregnant women who have received this drug.

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**Precautions.** Minor transient elevations of SGOT have occurred in a small percentage of patients. Therefore, this drug should be used with caution in patients with preexisting liver dysfunction.

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## What's Wrong With The Image Of Doctors Today?



WILLIAM T. WRIGHT, M.D.

DOCTORS ARE still much respected as individuals. As a group, we have a pure image in the eyes of many Americans. One of the most voiced criticisms of health care is that it is too expensive and in many instances too impersonal. I agree that health care is too expensive, but the price of a loaf of bread or a service call from a tv repairman or the purchase of a new automobile is also too expensive.

It is important to note that only about 12 percent of the total health care dollar goes to physicians. So if we all worked for free in this country, health care would only be reduced by twelve cents on the dollar.

The criticism that health care is too impersonal is also a valid criticism in many instances. As medicine has more sophisticated systems of intensive care, multi-specialty patient care, and more paramedical patient contact, patients have developed a feeling of a deep personal relationship with the doctor in their medical care. This can lead to misunderstandings in feelings of neglect by the patient.

I received a letter from a lady in north Alabama two weeks ago complaining about a \$4,000 hospital bill in the terminal illness of her husband, but her primary complaint was that she could not see her husband in the intensive care unit the final days of his life.

We also hear that our office personnel sometimes do not show as much concern over the patient's feelings, do not handle them as courteously as they feel they should be and do not complete their insurance forms as quickly as they desire. Some of these problems may be difficult to solve, but I believe that we—as a medical organization—should tackle the problem in a positive way.

I would like to see us launch on a program of public education. Let the patient know that we as the leaders of health care are not over-charging as a group; that many of the problems they experience in such areas as utilization review, third party problems are not the fault of their physicians, but simply reflect complots with regulations.

We are preparing to set-up one day workshops (for office personnel) to be given over the state with the cooperation of the AMA, covering such things as telephone techniques, collection, medical-legal problems and many other areas of needed information.

We are pushing public education of the Heimlich Maneuver and encouraging the teaching of Cardio-pulmonary Resuscitation be taught to the general public. These things should be especially taught to our office personnel, making them models in our community.

These are some of the efforts we are attacking in a positive way to project a better image for organized medicine. If you have thoughts that will help in formulating plans to project a better image for medicine in methods that you think we should consider in our overall public relations push, please feel free to write these suggestions to me and I can assure you they will be considered. Thank you.



# Editorial Comments

Journal of the Medical Association of the State of Alabama/19 So. Jackson St./Montgomery, Ala. 36104

## Irresponsibility Of The Press

LET THE LEAST threat to freedom of the press appear in a judicial action and there arises a great hue and cry pointing to the guarantees of the First Amendment to the Constitution. With much breast-beating the Fourth Estate extolls itself as responsible for the maintenance of liberty and democracy. At the same time, to the contrary, it repeatedly demonstrates brazen irresponsibility in its single-minded purpose to produce headlines. Additionally, many newsmen suffer from an overinflated ego and an egocentric belief that they can remake segments of, or possibly even all of, our society.

A recent *Time* essay on business and the press points up this philosophy. The author of the essay commented upon the lack of competence of those reporting upon the business world, saying,

"Here is where we are fed a daily diet of authoritative ignorance, most of which conveys a cheap-shot hostility to business and businessmen...Some of these newsmen are like kids with loaded pistols, prowling through corporate complexity to play games of cowboys and Indians, or good guys and bad guys....And by and large this is what too many of their editors also want."

Later in the essays he cites such an example: "Students at a Harvard Business School seminar will not soon forget the words of a visiting editor of a metropolitan daily who frankly stated that his happiest moment comes when he has brought a businessman to his knees." (*Time*, Feb. 9, 1976)

For a quarter of a century, as a medical editor, I have eyed the news media with continued displeasure and have not infrequently complained editorially of the blatant dishonesty of the Fourth Estate, or worse, dishonesty by innuendo, planting seeds of distrust in the minds of readers to fester and becoming impossible of being rooted out.

In the above quotations called from the *Time* essay, substitute "medicine" and the "medical profession" for "business" and "businessmen" and you have a precise description of what we recognize daily in our newspapers. In addition to playing "cops and robbers," there is another dimension to newsmen's delight in taking pot-shots at medicine—a sadistic response to the frustration of an inability to understand the Art of medicine, having been misled in this technologic age into thinking of medicine as a Science. I attempted to point this up in an editorial<sup>1</sup> a decade ago, stating there is much that is mysterious about illness and treatment, ill defined or intangible to the lay mind no matter how intelligent. Baffled by pathophysiology and the body's attempts to

cope with disease, the layman in his frustration and inability to understand may react with hostility to the doctor as an authoritative figure. Hence a newsman in a childish tantrum may plunge his pen into the inkwell and splash words on paper to create a caricature of the medical profession as a conglomerate blot of necessary evil.

WHAT IS so disappointing and dangerous is that prestigious newspapers lend themselves to the dishonesty of cultivating scare headlines. Several years ago the *National Observer* headlined, "Senseless Surgery," which touted Denenberg and his book, *Fourteen Rules on How to Avoid Unnecessary Surgery*, and recently the *New York Times*, using data from hearings of a Congressional Committee, displayed a headline, "Incompetent Surgery Is Found Not Isolated."

Organizations and persons within the medical profession are aware of, and are investigating overuse of surgery as well as other forms of treatment. In fact, the figures used by the Congressional Committee and the *Times* were from a preliminary ongoing study published in a respected medical journal.<sup>2</sup> The dishonesty lay in a flagrant disregard of McCarthy's qualifications and warnings in regard to the data and unjustified extrapolations.

"The evil that men do lives after them...."! The mounting criticism by the news media of all things medical seems to have as its aim a discrediting of the medical profession to the point that its "goings and comings" must be curbed by law. Irresponsibility of the Fourth Estate lies in its ability to hide behind the skirts of the First Amendment providing immunity to law and ethics. Innuendo can never be combatted. Tongue-in-cheek falsehood in a headline can, after the evil has been done, be acknowledged as erroneous in a one inch news column along with the Obituary Notices on a back page. No quantity of "letters to the editor," describing medicine as an Art and not a Science, or that disease does not lend itself to "cook-book" diagnosis or treatment, or the admission that doctors as all other human beings do err, or even that there are some few dishonest physicians as in every group of citizens, can undo the "evil that men do."

There is no point to repeat the rebuttals and criticisms which have appeared in the *AMA News* and other medical publications in their efforts to set the record straight since the blasts of the *New York Times* because the damage is irreparable. Blue Cross-Blue Shield's bow to the wind in its move to pay for one or even two consultations in instances where a patient



desires such before submitting to surgery, may illustrate the success of the media's campaign to undermine confidence in the medical profession. Obviously consultation is not evil in itself and is used by all ethical professionals. However, consultation under duress implies doubts concerning the competency of the first surgeon, and if figures should show a high concordance of agreement between the first surgeon and the consultant the news media will probably cry "collusion." Again the damage has been done. Since elective surgery contains matters of judgement, who is to say that the consultant's opinion is more valued than that of the first surgeon? Of course, if the "Blues," as a pacesetter, and later federal third party programs find that a consultant saves them money, judgement becomes a matter of little importance. (In this regard is it not strange that some studies have shown that doctors and their families have higher rates of elective surgery than the population at large; surely financial gain has no stake here!)

**MY WISH** in this editorial comment is to point to the origin of the recent *Times* episode. Many doctors, especially of the younger generation have an antipathy to "organized medicine" and to the AMA in particular, and no doubt will interpret that organization's rebuttal as unconscionable bias and whitewash. The *New England Journal of Medicine*, on the other hand, is commonly considered the acme of what is desirable in medical literature, as gauged by the younger group. The editor and staff of that journal have never been known to subserve as apologists for any group in medicine.

Therefore attention is directed to the obvious displeasure that Dr. Ingelfinger, editor, has expressed in an editorial entitled, "Misuse of Information in the *Journal*."<sup>3</sup> He criticized both the Moss-Congressional Committee and the *New York Times* for misuse of data published in the *Journal* to arrive at the statement that, "unnecessary surgery led to 11,900 deaths last year." He points to the misinterpretation and consequently erroneous conclusions from data of an ongoing study of elective surgical procedures.<sup>2</sup> The editor defines the use of the data as, "at times inaccurate, at times manipulated, and at times subjected to inappropriate extrapolation." He describes this as "curved-mirror reportage" and points to a corollary that in face of such misuse of material written for medical eyes, "an editor may be tempted to practice 'defensive journalism'—to publish only the safe and well demonstrated...." However, he says that, "The *Journal* must continue to present critical analyses of medical practice." Closing with the comment that the *Journal* has been termed "prestigious," he states, "One may hope that far more prestigious institutions, such as Congressional Committees and the *New York Times*, will use *Journal* material in a manner that is consistent with their status and reputation."

In closing this commentary it is appropriate to repeat one of Sir William Osler's epigrams dating back to early in this century: "Believe nothing that you see in the newspapers—they have done more to create dissatisfac-

tion than all other agencies. If you see anything in them that you know is true, begin to doubt it at once."

R. H. Kampmeier, M.D.

## References

1. Editorial: Criticisms of the medical profession. *South Med J* 59:1497-1498, 1966.
2. McCarthy EG, Widmer GW: Effects of screening by consultants on recommended elective surgical procedures. *N Engl J Med* 291: 1331-1335, 1974.
3. Editorial: Misuse of information printed in the *Journal*. *N Engl J Med* 294:667-668, 1976.

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## Having A Guest Speaker?

For those officers of county medical societies looking ahead for "program personalities" for future meetings of their societies, here are some helpful tips which should be considered before commitments are made:

(1) The speaker with "slides" — Watch out! Many speakers like to use slides. This is a very real help to those who can't sleep with the lights on. Slides are most beneficial when the speaker is a ventriloquist who never moves his lips when he speaks out and points to the wrong line as he reads the fine print.

(2) The "microphone fetish" — Careful with this one! Some speakers have quite a game with the microphone; they tap it, blow on it, cover it with their hand(s), get their head on the wrong side, or they may simply stare at it like it might crawl off if left unwatched.

(3) The "last minute substitute" — Here is a common fellow! Those who reluctantly fill-in at the last moment would probably prefer passing a small kidney stone instead. They are usually one of the "local boys" grabbed in the final hour by a desperate program chairman. If word leaks out, the only ones present besides the speaker and the program chairman are the next of kin, members of the immediate family, waiters and kitchen help.

(4) The "distinguished speaker" — The prima donnas of the banquet circuit! They enjoy listening to their speech even more than the audience does. They are always between planes and in a hurry. They must have a few important messages waiting when they arrive and a couple of long distance calls during the meeting.

There is, however, one predictable quality about a "guest speaker" — some unfortunate member of the society has to sponsor him (i.e., carry his bags, buy his drinks and point him towards the restroom at the right moment.)

*"Better to remain silent and be thought a fool, than to open your mouth and remove all doubt."*

Ye Olde Podium Proverb ■



#### RECENT CHANGES

**federal register**

**Providing  
Drug Information  
to Physicians**

**Informational  
Bulletin #433-76**

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**special report**

**Malpractice  
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**drug  
bulletin**

**Health care doesn't  
need more red tape**

**Drug firms challenge  
'MAC' rules**

**Drug  
Substitution**

**The Common Denominator  
of Health Progress  
RESEARCH**

**Mailgram 2**



# THERE ARE A LOT OF PEOPLE GETTING BETWEEN YOU AND YOUR PATIENT.

Medicine today is in the spotlight, subjected to all kinds of scrutiny. Your control over patient therapy is being monitored, judged and occasionally abrogated, sometimes by unknown third parties.

The worry is that in the wake of this focus, the relationship between you and your patient will be weakened, without offsetting benefits. Consider three examples:

**Drug substitution** In most states, pharmacy laws, regulations or professional custom stipulate that your non-generic prescriptions be filled with the precise products you prescribe. But in the last five years, a dozen or more State laws have been changed, permitting the pharmacist in most cases to select a product of the same generic drug to fill any prescription.

Ironically, this dilution of physician control has taken place against a background of growing evidence that purportedly equivalent drug products may be inequivalent, since neither present drug standards nor their enforcement are optimal. In fact, the FDA itself says it has not enforced the same standards for hundreds of "follow-on" products that it had applied to the original NDA approvals. Thus physician control over patient therapy is being eroded with a risk that patients may be exposed to drugs of uncertain quality.

The major advertised claim for substitution is reduced prescription prices for consumers. Yet no documentation of any significant savings has been produced.

**MAC** Maximum Allowable Cost, MAC for short, is a Federal regulation designed to cut the Government's drug bill by setting price ceilings for drugs dispensed to Medicare and Medicaid patients. Unless the prescriber certifies on the prescription that a particular product is medically necessary, the Government intends to pay only for the cost of the lowest-priced, purportedly-equivalent,

generally-available product. The effect of the program may be that elderly and indigent patients will be restricted to products which someone in Washington believes are priced right. Practicing doctors will have little to say about administration of the program, since Government will have absolute authority to make its choices stick.

**The drug lag** The future of drug and device research depends upon a scientific and regulatory environment that encourages therapeutic innovations. The American pharmaceutical industry annually is spending more than \$1 billion of its own funds and evaluating more than 1,200 investigational compounds in clinical research. Disease targets include cancer, atherosclerosis, viruses and central nervous system disorders, among others. But there is a major barrier to the flow of new drugs to your patients: The cost of the research is more than ten times what it was, per product, in 1962; and whereas governmental clearance of new drug applications took six months then, it commonly consumes two years now.

The FDA needs adequate time, of course, to consider data. But it is equally clear that the present approval process contributes to needless delay of needed therapy. That's why the increased efficiency of the drug approval process is vital to all our futures.

If these issues concern you, we suggest that you make your voice heard—among your colleagues and your representatives in State legislatures and in Washington.

It could make a difference in your practice tomorrow.



Pharmaceutical Manufacturers Association  
1155 Fifteenth Street, N.W., Washington, D.C. 20005

# Letters

## Argentina Bound

Re: Carney, F., Antibiotic Prophylaxis in Obstetrics and Gynecology, *Journal of the Medical Association of the State of Alabama*, 44:493, March, 1975

Our associates in Argentina have requested us to seek the necessary permissions to prepare a translation of the aforementioned paper into Spanish. The translation would be made available to members of the medical and allied professions who would request it by name or subject.

As we may, however, receive a similar request from some of our other foreign affiliates, would you also be willing to extend your permission to prepare translations of this paper to all countries in our Eli Lilly International organization that would be desirous to do so? Again, the translations would be distributed to physicians upon request.

Full credit would be given to the author and to the source. We are also contacting Dr. Carney for approval.

Should you be agreeable to our request, you may indicate your consent by signing this letter and returning it to the writer in the enclosed self-addressed envelope. You may care to retain the additional copy for your files.

We are looking forward to hearing from you and thank you in anticipation of your kind consideration of our request.

Sincerely yours,

(Mrs.) Jeannette Battista

Medica Editorial Services

(Eli Lilly International Corporation)

Indianapolis, Indiana

## "Diarrhea" Complications

I am writing in regard to the article on diarrhea written by Dr. Thomas W. Sheehy appearing in Volume 46, No. 3, September 1976 on page 26. On page 31 the author gives a table entitled, "Home-Remedy: Oral Glucose Electrolyte Solution for Diarrhea." He then cites how to mix the above solution for the treatment of diarrhea on an outpatient basis. I think this is a case where the idea is good but frequently the "act" comes out bad. Throughout my residency and practice I have on occasion seen three patients presenting for admission to the hospital with hypertonic dehydration, two which presented with convulsions. All of these individuals had a sodium in excess of 185 and one patient had a sodium of 202. The reason for this was improper electrolyte solution prepared at home. The grandmother or some individual became confused about what to mix with one quart of water and what happens is rather than giving 4 teaspoons of sugar, they gave 4 teaspoons of salt and 1 teaspoon of sugar. It is for this reason that I recommend not using the home-remedy whereby the individual mixes up the solution for the child. Preferably I recommend using something such as CHO-FREE - Pedialyte, sweetened tea, carbonated beverages or elsewhere. Granted some of these may not have the necessary amount of electrolytes (however

CONTINUED ON PAGE 53

## LIBRIUM® (chlordiazepoxide HCl) 5 mg, 10 mg, 25 mg capsules

Before prescribing, please consult complete product information, a summary of which follows:

**Indications:** Relief of anxiety and tension occurring alone or accompanying various disease states.

**Contraindications:** Patients with known hypersensitivity to the drug.

**Warnings:** Caution patients about possible combined effects with alcohol and other CNS depressants. As with all CNS-acting drugs, caution patients against hazardous occupations requiring complete mental alertness (e.g., operating machinery, driving). Though physical and psychological dependence have rarely been reported on recommended doses, use caution in administering to addiction-prone individuals or those who might increase dosage; withdrawal symptoms (including convulsions), following discontinuation of the drug and similar to those seen with barbiturates, have been reported.

**Usage in Pregnancy:** Use of minor tranquilizers during first trimester should almost always be avoided because of increased risk of congenital malformations as suggested in several studies. Consider possibility of pregnancy when instituting therapy; advise patients to discuss therapy if they intend to or do become pregnant.

**Precautions:** In the elderly and debilitated, and in children over six, limit to smallest effective dosage (initially 10 mg or less per day) to preclude ataxia or oversedation, increasing gradually as needed and tolerated. Not recommended in children under six. Though generally not recommended, if combination therapy with other psychotropics seems indicated, carefully consider individual pharmacologic effects, particularly in use of potentiating drugs such as MAO inhibitors and phenothiazines. Observe usual precautions in presence of impaired renal or hepatic function. Paradoxical reactions (e.g., excitement, stimulation and acute rage) have been reported in psychiatric patients and hyperactive aggressive children. Employ usual precautions in treatment of anxiety states with evidence of impending depression; suicidal tendencies may be present and protective measures necessary. Variable effects on blood coagulation have been reported very rarely in patients receiving the drug and oral anticoagulants; causal relationship has not been established clinically.

**Adverse Reactions:** Drowsiness, ataxia and confusion may occur, especially in the elderly and debilitated. These are reversible in most instances by proper dosage adjustment, but are also occasionally observed at the lower dosage ranges. In a few instances syncope has been reported. Also encountered are isolated instances of skin eruptions, edema, minor menstrual irregularities, nausea and constipation, extrapyramidal symptoms, increased and decreased libido—all infrequent and generally controlled with dosage reduction; changes in EEG patterns (low-voltage fast activity) may appear during and after treatment; blood dyscrasias (including agranulocytosis), jaundice and hepatic dysfunction have been reported occasionally, making periodic blood counts and liver function tests advisable during protracted therapy.

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system. It is used concomitantly with many primary medications, such as cardiac glycosides, antihypertensive agents, anticholinergics, diuretics, antacids and anticoagulants. It should be noted that variable effects on blood coagulation have been reported very rarely in patients receiving Librium and oral anticoagulants; however, a causal relationship has not been established clinically.

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\*INDICATIONS. Based on a review of this drug by the National Academy of Sciences—National Research Council and/or other information, FDA has classified the indications as follows:

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Final classification of the less than effective indications requires further investigation.

**CONTRAINDICATIONS.** Administration of Antivert (meclizine HCl) during pregnancy or to women who may become pregnant is contraindicated in view of the teratogenic effect of the drug in rats.

The administration of meclizine to pregnant rats during the 12-15 day of gestation has produced cleft palate in the offspring. Limited studies using doses of over 100 mg/kg/day in rabbits and 10 mg/kg/day in pigs and monkeys did not show cleft palate. Congeners of meclizine have caused cleft palate in species other than the rat.

Meclizine HCl is contraindicated in individuals who have shown a previous hypersensitivity to it.

**WARNINGS.** Since drowsiness may, on occasion, occur with use of this drug, patients should be warned of this possibility and cautioned against driving a car or operating dangerous machinery.


*Usage in Children:* Clinical studies establishing safety and effectiveness in children have not been done; therefore, usage is not recommended in the pediatric age group.

*Usage in Pregnancy:* See "Contraindications."

**ADVERSE REACTIONS.** Drowsiness, dry mouth and, on rare occasions, blurred vision have been reported.

More detailed professional information available on request.

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# Child Abuse: Scourge Of Society



**CHILD ABUSE**, an ugly and unnecessary crime (but what crime is really "necessary?"), maims, injures and kills literally thousands of children in the United States each year. The depravity of this heinous scourge of our society, along with its customary explicit details for "shock value", has been revealed again to the American citizenry with the latest news report of the death of a four-year-old Cleveland, Tennessee youth, a victim of severe beatings by her parents.

The overriding message in the article was reflected in a quote from the little girl's pediatrician who, after examining the battered little body, stated, "I can't tell you what kind of hell this baby lived through while she was alive." The message seems to be the same, over and over again. The short life experienced by Melisha Gibson, like many others, is a hell that no human should have to endure.

Alabama is not immune from this crime. While much has been accomplished in the way of child abuse prevention and public awareness campaigns, many stones have yet to be unturned. Strong reporting requirements and appropriate follow-through with criminal prosecution in this state have long had the support of the Medical Association of the State of Alabama, the Alabama State Department of Pensions and Security, the Alabama Court System and all law enforcement agencies.

**NEEDLESS TO SAY**, the Alabama Court of Criminal Appeals' decision on October 31, 1976, declaring a section of the Alabama Criminal Code relating to child abuse unconstitutional raised a few eyebrows. The Court affirmed a lower court's decision that "the offense defined in the title of the act required that the

offender must willfully commit the act, while the offense defined in the body of the act required no such mental state but rather a physical act alone."

Within two days of the Court's decision, the Attorney General's office stated that the decision "has no effect on the provisions of the code that require reporting of suspected or known child abuse. Only the section of the code relating to child abuse was ruled unconstitutional."

It will now take a corrective course of action on the part of the Alabama Legislature in 1977 to pass a new law which would redefine in both the body and the title of the act the offense involved, and based upon the general public's feeling about child abuse, that should be the quickest and easiest law to pass next year.

Alabama's child abuse reporting law remains in tact. Its provisions have been clarified by the Attorney General's office. The burden of revamping the code for full protection is now left in the hands of the Alabama Legislature.

**THIS NEED** is not to be a hit-or-miss proposition, but should be a clearly defined priority when the Legislature convenes in January. Though this will go a long way to help in the fight, it is not the complete answer. A law will protect human rights, but will not, in and of itself, prevent further child abuse. Only an aware and dedicated public can do that. It begins at home and no law, regardless of its intent, can physically stop a parent or guardian's intentions.

Maybe we are on the right road; maybe we have only scratched the surface, but Melisha Gibson's pediatrician can give us some idea of what she went through, and how many more times must we hear that same report.

# BIRMINGHAM BULLS

## A NEW GAME IN TOWN

*Hockey pucks are flying in Birmingham, Alabama, and according to attendance figures at the home games of the Birmingham Bulls, Alabamians have responded in kind with enthusiasm and interest.*

*The sport of hockey, the pastime of Canada and North America, has officially invaded the Deep South with teams now located in Atlanta, Georgia, and Birmingham. The Birmingham Bulls is the latest entry into the World Hockey Association (Atlanta is affiliated with the National Hockey League) and as of this writing, the team ranks near the top in its division.*

*Being the contact sport that it is, hockey teams are required to have team physicians in attendance at games, a league instituted requirement in professional hockey. Violation of the rule results in a stiff fine. The Birmingham Bulls are attended by two Birmingham orthopedic surgeons, Drs. Donald W. Autry and Lawrence J. Lemak.*

*A native of Birmingham, Dr. Autry is a graduate of the University of Alabama School of Medicine. He completed his residency in orthopedics at the University of Alabama Hospital and Clinics in 1971 and has been in practice in Birmingham at the Norwood Clinic since that time.*

*Dr. Lemak is a native of Pennsylvania, which boasts of two professional hockey teams all its own. He, too, is a graduate of the University of Alabama School of Medicine. He journeyed to the University of Pittsburgh to complete his orthopedic residency and returned to Birmingham in mid-1976 to practice at the Norwood Clinic.*

*Fascinated by the public outpouring of support for the Birmingham Bulls, the JOURNAL interviewed Drs. Autry and Lemak to gain a first-hand assessment of what it is like to be team physicians for a professional hockey team.*

**JOURNAL:** How were you selected to be the team physicians for the Birmingham Bulls?

**DR. LEMAK:** Management of the Bulls contacted us to see if we were interested. They had interviewed other physicians in and around the Birmingham area before they settled on us. Our selection was made in early September, only weeks prior to beginning the league's first season. We have a "gentlemen's agreement" with the Bulls to provide them with medical attention during all home games and practice sessions.

**JOURNAL:** Have either of you had any prior experience as physician for athletic teams, hockey or otherwise?

**DR. AUTRY:** At the present time, I am the team physician for Vestavia High School here in Birmingham.

We both see injuries from many high schools north of Birmingham, but to professional hockey medical needs, I am virtually a newcomer.

**DR. LEMAK:** During my residency, I helped look after two professional Pittsburgh teams which have familiar names in the world of sports—the Pirates and the Penguins. Later, I had the privilege of being asked to create a sportsmedicine program at Federal City College, Washington, D. C.

**JOURNAL:** For those of us from the South and unaccustomed to the sport of hockey, the following would probably be the first and most common question asked of any team physician: What are the most common injuries you see in this sport?

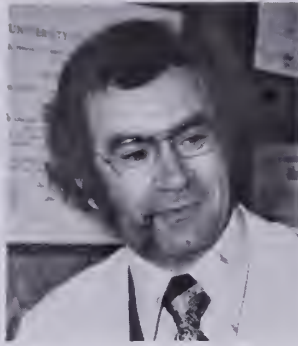
Continued on Page 20







**DR. LEMAK**



**DR. AUTRY**

**DR. LEMAK:** I would have to say, and I believe Dr. Autry would agree, that face lacerations and contusions would rate as the most frequent injuries we see and of course, one will treat the usual number of muscle pulls. Shoulder separations were the only injuries which were noticed with an increased incidence.

**DR. AUTRY:** I would have to agree. Surprisingly, there are many upper body injuries, far more than one would expect. The reason is because the players wear very little padding on the upper part of the body. The padding would offer more protection but would reduce a player's mobility and in hockey, speed and mobility are what count.

**JOURNAL:** Do you confer on cases with physicians from other teams in the World Hockey League?

**DR. AUTRY:** Not really. At this point in time, we have not had the opportunity to do so. We cover home games for the Bulls and the visiting team and when the Bulls are on the road, physicians in those cities are on call.

**DR. LEMAK:** Dr. Autry and I believe that an association of pro hockey team physicians would fit in well with bridging the existing gap between physicians of the various teams. Discussion has already begun in hopes that an association of hockey team physicians can be created. The association would not only open up direct lines of communication between team physicians, but could also take initiatives to set up more stringent safety regulations for hockey players.

Safety rules in the World Hockey League are very good at this time and the players adhere strictly to them. But there is room for improvement and a team physician's association would lend additional credence to the need for better safety regulations.

**JOURNAL:** What are the differences, if any, in the types of injuries seen by physicians for hockey teams versus those seen by football or basketball team physicians?

**DR. AUTRY:** In football, the injuries were all over the body. No part of the body is really immune from possibly injury in football and basketball. Hockey injuries occur, as we have stated, more frequently on the upper part of the body. Heat stroke exhaustion is of course far more prolific in football since basketball and hockey are played indoors in air conditioned coliseums.

**DR. LEMAK:** In dealing with professional athletes, you are dealing with superb, physically fit individuals. With high school athletes, you are dealing with individuals of a greater spectrum and who do not necessarily maintain their body condition year round.

There is a good chance that we will see less injuries among our professional athletes, even though they will get hit just as hard. The pros are going to continue to play with injuries because the sport is their livelihood and they are in it for such a brief period of their lives. These guys are hard as nails and often play in pain; they love their sport and would do anything to keep playing.

**JOURNAL:** You said that you are available for home games. What about away games?

**DR. AUTRY:** Dr. Gordon Robinson, Jr., is a plastic surgeon and he assists us with injuries during home games. At least one of us is required to be in actual attendance during the game; then, when the team is away, physicians in that city are called upon to serve the team's medical needs.

**DR. LEMAK:** I don't know whether you know this or not, but it is a League rule that all professional hockey teams must have team physicians present at the games. To be without one would leave them wide open to a \$5,000 fine.

For dental problems, there is a dentist here at the Norwood Clinic which we are able to call upon. Believe me, hockey players are quite susceptible to encountering missing teeth and mouth injuries during the course of their season. Only the goalie wears a face mask.

**JOURNAL:** What is your relationship with the team trainers?

**DR. LEMAK:** The Bulls have two full-time trainers. They serve as the "first line of contact" to the injury and call us only as needed.

**DR. AUTRY:** They are both well-qualified and well-trained. They give excellent care and supervision to the players. They have a great deal of respect for the players. The team members are instructed by management to deal directly with the trainers and not call the team physicians on their own accord.

**JOURNAL:** How do the Bulls feel about playing in Birmingham?

**DR. AUTRY:** They love it here. The players are of top-notch caliber. They do not consider themselves "prima donnas."

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**DR. LEMAK:** The reception for the Bulls has been excellent and Dr. Autry and I would encourage all those who may read this feature to try to attend some of the games. We believe they will find it to be a great spectator's game.



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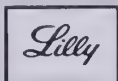
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## Pediatric Update—Childhood Tuberculosis

By Dana M. Brasfield, M.D., Raymond K. Lyrene, M.D., Ralph E. Tiller, M.D.\*

**TUBERCULOSIS** continues to be a major public health problem in Alabama. In 1974, there were 785 new active cases of tuberculosis in this state with an incidence of 21.9/100,000 population. This ranks 4th among the 50 states with only Hawaii, Alaska and South Carolina having a higher incidence.<sup>1</sup> Ninety of these new active cases were in patients less than 20 years old.<sup>2</sup>

Prior to the introduction of antituberculous chemotherapy, the case fatality rate among children with active primary disease was high (24%). Deaths usually occurred within the first year after acquiring the organism. Most of the deaths were due to tuberculous meningitis, with or without miliary tuberculosis. Ten per cent of deaths were due to miliary tuberculosis not associated with meningitis. Locally progressive primary tuberculosis and more protracted forms of hematogenous tuberculosis each accounted for 15% of the fatal cases. Chronic pulmonary disease developed in 8.7% of survivors.<sup>3</sup>

The management of children with tuberculosis varies from management of the disease in adults because of differences in pathogenesis, therapy, and prognosis.<sup>3,4,5</sup> These guidelines are presented to emphasize these differences and provide a rational approach to diagnosis and treatment.

### PATHOGENESIS

In primary tuberculosis, the portal of entry is usually the lung, since spread is most often by airborne droplets. Local multiplication of bacilli and a subsequent local inflammatory reaction is followed by spread through the lymphatics to the nearest group of lymph nodes draining the primary focus. The primary focus remains unencapsulated until hypersensitivity is established. During this early stage of infection, a few tubercle bacilli reach the blood-stream either directly from the primary focus or through the lymphatics via regional lymph nodes and thoracic duct. This occult dissemination may result in the establishment of latent foci in other body organs. Most complications of primary tuberculosis result from this hematogenous dissemination. Adult or chronic pulmonary tuberculosis is associated with an accelerated inflammatory reaction that tends to localize the bacilli and to prevent spread through the lymphatics resulting in local caseation and cavitation. With occasional exception reinfection tuberculosis is the result of endogenous reactivation.<sup>9</sup>

### OUTLINE OF MANAGEMENT

#### THE CHILD WITH A POSITIVE TUBERCULIN REACTION WITH OR WITHOUT A PRIMARY INFILTRATE ON CHEST X-RAY

##### Diagnosis

Tuberculin skin tests are one of the major diagnostic tools for the detection of tuberculosis. The skin test material should consist of 5 TU of purified protein derivative (PPD-intermediate strength), tween 80 stabilized, injected intradermally. Measurement of 10 mm induration after 48-72 hours is a positive reaction. A positive reaction indicates a tuberculous infection but does not differentiate between active and inactive disease nor does the size of induration correlate with the severity of the disease. Tine testing may be used as a screening technique, but an intradermal IPPID must be applied for definitive diagnosis.<sup>6</sup> Skin tests are applied at 9 months of age and every one to two years thereafter.<sup>7</sup>

Attempts to obtain the organism are of prime importance in view of infections caused by INH resistant *Mycobacteria*. Sputum cultures are difficult to obtain from small children so other techniques are necessary. If the lung infiltrate is accessible, needle aspiration is a safe, rapid means of obtaining the organism for culture and sensitivity.<sup>8</sup> Gastric aspirates should be performed (each morning for three days) if lung aspiration is not possible. There is a low yield (20%) of positive cultures with this technique, even in the presence of positive x-rays.<sup>3</sup> Every effort should be made to find the source case since the sensitivities of the organism from that person can be used to determine the therapy for the child.

In children less than four years of age, a lumbar puncture should be performed since the symptoms of tuberculous meningitis are insidious and may not be obvious in the smaller child.<sup>3</sup>

Children with primary tuberculosis or skin test conversion are not contagious and should resume their normal activity while on therapy. There is no danger of droplet infection. The majority do not cough or if they produce sputum, it is swallowed. However, children with draining sinuses, renal tuberculosis or cavitary pulmonary lesions may be infectious.<sup>3,7,9</sup>

##### Therapy

Isoniazid is the drug of choice for treatment of children who fall into this classification.<sup>10,11,12</sup> It is given as a single daily oral dose of 10 mg/kg (not to exceed 300 mg) and is continued for a total of 12 months.<sup>7</sup> (Table 1) For those children with a primary infiltrate on the chest x-ray a

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two drug regimen is acceptable but not mandatory if there is no evidence of INH resistant organisms. Two drugs, INH and Rifampin, may be continued until sensitivities of the infecting organism are available. (Table 1) If organisms are INH sensitive, INH alone can be continued. Peripheral neuritis occurs rarely in children. Concomitant pyridoxine administration is necessary only in the presence of malnutrition or during adolescence.<sup>7,9</sup> INH hepatitis is rare during childhood.<sup>13</sup> Close followup is necessary to insure patient compliance and for detection of complications. Chest x-rays are obtained every three months. After the year's therapy annual chest x-rays are necessary through adolescence because of the risk of reactivation at puberty.<sup>3</sup>

#### COMPLICATIONS OF PRIMARY TUBERCULOSIS

Hematogenous Tuberculosis (Miliary)

Central Nervous System Tuberculosis

Progressive Primary Tuberculosis

Renal Tuberculosis

Tuberculosis of the Skeletal System

#### Diagnosis

Again, every effort should be made to make a bacteriologic diagnosis, obtain sensitivities and locate the source case. In addition to the diagnostic maneuvers mentioned for uncomplicated primary tuberculosis, other tests may be indicated including bone marrow aspiration, urine culture, lumbar puncture, bone scan, lymph node biopsy, etc. With meningeal involvement, approximately 10 cc's of spinal

fluid are needed for culture to insure an adequate inoculum.<sup>14</sup>

#### Therapy

After obtaining the initial diagnostic specimens, triple therapy is begun. This consists of: (1) INH 10-30 mg/kg/day p.o. (up to 300 mg total); (2) Rifampin 15-20 mg/kg/day p.o.; (3) Streptomycin 20 mg/kg/day IM (not to exceed one gram). (Table 1) Daily Streptomycin should be continued for the first month of treatment after which it may be given three times weekly for the remainder of the three-month treatment period. Therapy with two drugs is continued for 18-24 months. The INH dose may be lowered to 10 mg/kg (not to exceed 300 mg/day) after 4-6 weeks of therapy.<sup>7,9</sup>

Continued surveillance is necessary to detect local changes in mycobacterial sensitivity patterns. A case in point is the high incidence of resistance to INH and Streptomycin noted as Kings County Hospital in Brooklyn, New York. Because of their findings Steiner, et al are now recommending an initial four-drug regimen in instances of life-threatening tuberculosis.<sup>15,16,17</sup>

#### TUBERCULOSIS OF THE SUPERFICIAL LYMPH NODES (SCROFULA)

#### Diagnosis

In the southern United States, most cases of scrofula are caused by atypical *Mycobacteria* species. If available, skin

TABLE 1. Drugs Most Frequently Used in the Therapy of Childhood Tuberculosis

Drug	Daily Dose	Route	Duration of Treatment	Possible Toxic Effects
Isoniazid  Tabs. 100 and 300 mgm (Liquid prep. not recommended)	10-30 mg/kg/day (up to 300 mg total) single daily dose	P.O. (or I.M.)*	12-24 mos.	Rare in children
Rifampin  Caps. 300 mgm**	10-20 mg/kg/day (up to 600 mg total) single daily dose	P.O. (only)	12-24 mos.	Hepatotoxicity
Streptomycin  2 cc vial 0.5 Gm/ml.	20 mg/kg/day (up to 1 gram) single daily dose first month then three times weekly	I.M. (only)	3 months	Ototoxicity Vestibular damage

\*Parenteral preparation (10 mg vial, 100 mgm/ml) may be used I.M. in vomiting or comatose patients.

\*\*Pharmacist can divide into powders for pediatric use.



testing for atypical *Mycobacteria* may be diagnostically useful. Proof of the diagnosis rests upon culture of the offending *Mycobacterium* from excised lymph nodes.<sup>18</sup>

## Therapy

Treatment consists of surgical excision with primary closure. Most atypical strains are resistant to conventional antituberculous medications and drug therapy is not recommended. If the adenitis is caused by *Mycobacterium tuberculosis*, anti-tuberculous therapy should be initiated with INH and Rifampin pending sensitivities and then single drug treatment continued for the remainder of the 12-month treatment period.<sup>18</sup>

## PREVENTION

The prevention of tuberculosis depends upon case detection and chemotherapy.<sup>19</sup> At the present time, there

is no indication for the routine use of BCG in the pediatric population in the United States.<sup>20,21,22,23,24,25</sup>

Alabama continues to have an unacceptably high incidence of tuberculosis. Close cooperation and teamwork among those concerned with public health activities and with the care of patients will be necessary in order that this incidence might be decreased. There are several reasons why any plan for prevention of tuberculosis must particularly concern itself with children. In countries with a low rate of infection much of the active tuberculosis found in adults is secondary to reactivation of disease originally acquired in childhood. In addition, positive tuberculin reactions in children may furnish clues to previously unknown active cases of tuberculosis in adults. Tuberculosis can be prevented in children. Its ultimate disappearance as a public health problem will require dedication of everyone interested in the health and welfare of our children.

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Funded in part by a grant from the Cystic Fibrosis Foundation.

# False Positive Liver Scans

T. Nagendran, M.B., B.S., F.R.C.S. (C), F.I.C.S.\*



**Figure 1.** Liver scan in the first case. Note the large filling defect in the dome of the liver.

**LIVER SCANS** were first reported by Stirrett et al., in 1953<sup>8</sup>. Since then, these scans have been used to provide significant information about the organ size, shape, position, function and the lesions that occupy space within the liver parenchyma or compress the liver from without<sup>5,8</sup>. Even though some textbooks state the liver scans are highly accurate (90%) in detecting the lesions more than 1.5 cm in size, Covington et al., pointed out that these scans are associated with a fairly high incidence of pitfalls (29%) both false positive and false negative findings<sup>3</sup>. We wish to present two cases of false positive liver scans proven by operation and/or autopsy. The literature has been briefly reviewed.

**CASE 1:** This 55-year-old male veteran was admitted to V.A. Hospital, Tuskegee, Alabama, on 12-30-74 with c/o Chronic Epigastric Pain and weight loss of 20 pounds. The patient was known to have chronic calcific pancreatitis. Physical Examination revealed hepatomegaly extending four finger breadth below the right subcostal margin. Liver function studies, upper GI series and GB series were within normal limits. A liver scan (99TcM Technetium Sulfur Colloid) revealed a large defect in the parenchyma of the dome of the liver. (Fig. 1) A celiac angiogram was attempted but not successful

because of the severe peripheral arterial occlusive disease. An inferior vena cavalogram was obtained but the mass was not visualized. The patient was discharged home.

He was readmitted in two months with similar symptoms and a repeat liver scan still revealed the defect. The patient was subjected to an exploratory celiotomy to rule out hepatoma. The exploration was essentially negative except for a few adhesions between the dome of the liver and the under surface of the diaphragm. There was a one centimeter cyst located on the antero-superior surface of the liver. This was excised and submitted for histopathological examination which revealed no pathology. On the 8th postoperative day, the patient died of acute myocardial infarction. An autopsy revealed a somewhat enlarged liver but no tumor or cyst. The microscopic sections revealed no pathology.

**CASE II:** This 17-year-old male veteran was admitted on 12-29-75 with nausea, vomiting and acute epigastric pain. On admission, the patient had transient elevation of serum bilirubin (2 mgms%) and WBC (13,600) with a shift to left. The physical examination revealed moderate tenderness in the epigastrium, more to the right side of the midline. Hepatitis Associated Antigen, upper GI series and GB series were within normal limits. The liver scan (99 TcM) revealed a filling defect in the left lobe of liver (Fig. 2). The stool examination for ova and parasites was negative. Because of the persistent epigastric pain tenderness, an exploratory celiotomy was done. The liver was essentially within normal limits and needle and wedge biopsies of the liver revealed no pathology.

## Discussion

The most common causes of false positive liver scans have been summarized in Table I.<sup>7</sup> The exact incidence of false positive scans is not known. Covington et al., pointed out that gallbladder shadow is the most common cause of false positive scans (15%)<sup>3</sup>. Rose Bengal I<sub>131</sub> liver scan would clarify this since Rose Bengal is excreted in the bile. Unlike Rose Bengal, 99 TcM, sulfur colloid is picked up by the reticuloendothelial system of the liver. Bolich et al., showed that localized thinning of liver tissue with reduction of the reticuloendothelial system can cause a false positive scan<sup>2</sup>. The interposition of gas-filled or barium-filled colon in between liver and diaphragm (Chilaiditi's sign<sup>6</sup>) is another important cause of false positive scans, but according to Seymour et al., this could be prevented by obtaining a plain film of the abdomen routinely before liver scans<sup>4</sup>. Review of the literature reveals that celiac angiography and/or ultrasonography will be of further help in delineating these false positive scans. Above all, awareness of such a high incidence of false positivity will cut down the number of unnecessary exploratory operations.

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The author's statements and conclusions are the results of his own studies and do not necessarily reflect the opinion or policy of the Veterans Administration.



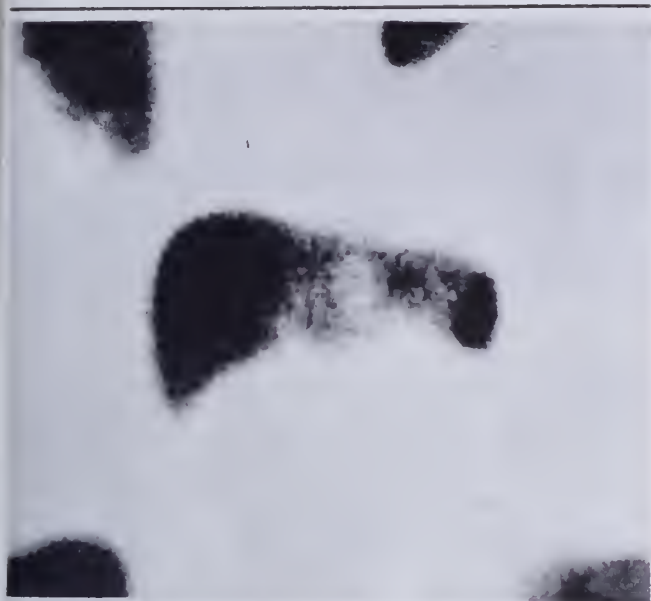


Figure 2. Liver scan in second case. Note the filling defect in the left lobe of the liver.

### Conclusions

Two cases of false positive liver scans were presented. The most common causes of false positive liver scans and simple means to recognize them are described.

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### TABLE 1

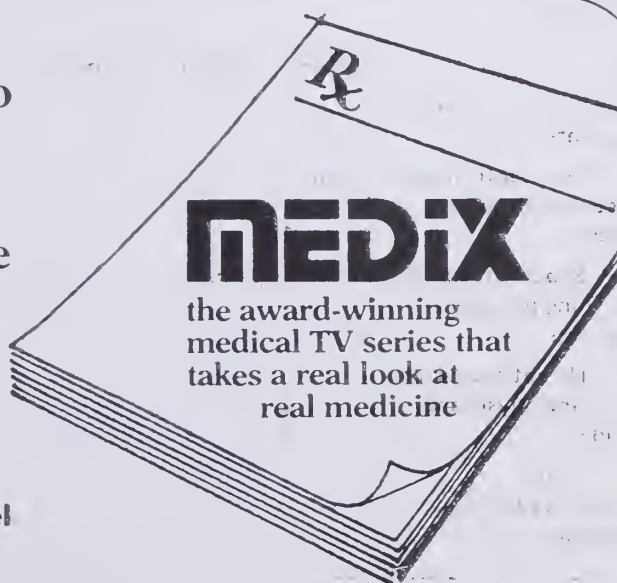
1. Gallbladder Shadow
2. Foreign Objects Like Pocket Lighter
3. Pendulous Breast
4. Localized Thinning of Liver
5. Inferior Veno Caval Shadow
6. Prominent Rib Cage
7. Porta Hepatitis
8. Lordotic Spine
9. Normal or Pathologic Right Kidney or Right Adrenal Gland
10. Interposition of Colon (Chilaiditi's Sign)
11. Emphysema, Subphrenic Abscess or Phrenic Nerve Injury
12. Massive Splenomegaly or Dilated Splenic Vein
13. Ascites
14. Hematoma of Liver

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# MEDICAL GRAND ROUNDS

By Cobb Barksdale, M.D.

June 10, 1976

**THE CONTROVERSY** regarding anticoagulation in acute myocardial infarction has gone on for almost 20 years with continued zest. For me the controversy has led to some interesting discoveries: (1) Doctors don't always have scientific data upon which to base therapy, (2) only in controversy does one examine closely the methods by which he reaches a conclusion, and lastly (3) this controversy made me appreciate old and new data and how to examine data, both old and new.

To examine scientific data, one must realize how it comes about. This is basically a result of two processes: (1) experience and (2) theory. Experience encompasses two ways of obtaining information, one of which is personal trial and error, while the other is from the experience of others. Theory is also derived from two sources in that you can extract it from recorded data or you may actually perform research of your own.

The importance of theory and experience is pointed out in the following quotes from *The Hot Spring Specialist*:<sup>1</sup> "Theory is essential to the successful practice of medicine, but until coupled with experience cannot be considered a safe method. Unfortunately, about the time a doctor has learned how to cure his patient he is, by old age or death, removed from the field of action and another, with only

theory, must take his place, and often many lives be sacrificed that he too may obtain experience."

Also pointed out in the introduction of this work is that doctors should not be prejudiced toward one form of therapy over another: "Much needless suffering and many deaths have been the result of prejudice of physicians. The day of prejudice and ostracism is fast drawing to an end. What the patient wants and now demands is 'quality not quantity', 'facts not fallacies', 'results not theories.'" Because I will attack all the above, let me say that I intend to show no disrespect, to slander no one and to embarrass no one—especially myself!

**FOR THOSE OF YOU** who are not aware that a controversy exists in this area, let me relate to you what Harrison's and some other sources say about anticoagulation in acute myocardial infarction. The latest edition of *Harrison's*<sup>2</sup> states that anticoagulants decrease the incidence of thromboembolic complications and that since these don't arise until after the first 2 to 3 days the long acting anticoagulants are the best choice. From the cardiology text by Conn and Horwitz<sup>3</sup> comes the advice to use heparin for the first week, and then coumarin derivatives. Conflicting views in the general texts are very perplexing.

Next let us look at an article from a highly specialized myocardial infarction research unit. Dowling, et. al.<sup>4</sup> are very specific regarding antiarrhythmias and even stool softeners, but very vague regarding anticoagulants!

Now that we have seen what the "theorists" say about anticoagulation in acute infarction, let's look at what a recent poll of practicing physicians say about the matter. A letter inquiring about the type and reasons for anticoagulants was mailed to 37 physicians who listed in the classified section of the Mobile phone book as Internal Medicine and/or Cardiology. The same questionnaire was given to 18 medicine residents here at University Medical Center. Twenty-five of thirty-seven physicians responded and 14 of 18 residents. Their preferred choices of anticoagulation are summarized in Table 1.

**NOW THAT WE HAVE** established that a controversy does indeed exist, let us look at why. One simple reason is that there are several different types of anticoagulants and a multitude of laboratory tests which measure their effects. The main source of controversy is probably due to the differences of opinion regarding what anticoagulants do in acute myocardial infarction. One proposed benefit for anticoagulants is the reduction in mural thrombi formation and thus a reduction in systemic arterial thrombi. As you can imagine, it is very difficult to establish a means by which to evaluate the formation of mural thrombi, and it is

**TABLE 1**

**Preferred form of anticoagulants in acute myocardial infarction:**

Oral	Qualified	Both oral and heparin
Practicing physicians	6	4
Residents		
Therapeutic heparinization		
Practicing physicians	17	1
Residents	1	1
Subcutaneous "mini dose" heparin		
Practicing physicians	1	
Residents	9	
No anticoagulants		
Practicing physicians	8	2
Residents	5	1
Other		
Practicing physicians	1	
Residents		

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even harder to propose a sound mechanism of action for drugs that primarily prevent "red thrombi" when mural thrombi are actually "white thrombi."

Another problem in determining if systemic emboli are reduced by anticoagulants is differentiating thromboembolic CVAs from simple ischemic CVAs. A major source of controversy regards whether or not anticoagulants can reduce the extent of coronary thrombosis, and this is a difficult question to answer since there is absolutely no concrete evidence that coronary thrombosis is a major part of acute myocardial infarction.

A final area of controversy is whether or not anticoagulants will decrease deep vein thrombosis and which anticoagulants do this most effectively. Table 2 is a summation of the questionnaires from our local experts.

Where would be the most logical place to start if you were going to review the literature on anticoagulation in acute myocardial infarction? Probably the most logical plan would be to begin with the originators of the concept, and this would take us back to 1938 when Sollandt, Best, and Bassin<sup>5</sup> studied the effects of heparin on experimental myocardial infarction in laboratory animals. They stated that the extent of coronary thrombosis and the formation

# Anticoagulation In Acute Myocardial Infarction

of mural thrombi was significantly reduced by heparin. Because of the expense of heparin at that time, no one really attempted to use it on humans.

IN THE EARLY 1940's the discovery of oral war farin led to the first reports of anticoagulants in myocardial infarction. The American Heart Association decided to appoint a committee to study this theory in 1000 patients. The study was to be a cooperative effort of several hospitals and the study was headed by Dr. Irving Wright, who was one of the first to use oral anticoagulants in acute infarctions. He found the data so convincing that he decided to publish the results before the study was completed, and in the *American Heart Journal*<sup>6</sup> in 1948 appeared the first large scale study of anticoagulants in myocardial infarction (Table 3).

Simple enough, good journal, good author, and data stating that anticoagulants are beneficial in acute infarctions. So why is there a controversy? I think we can best answer this question by turning to an article by Gifford and Feinstein<sup>7</sup> which appeared in the *New England Journal of Medicine* in 1969. In this article, the authors point out eight methodologic standards which would be essential to show that anticoagulants are beneficial in acute myocardial infarction (Table 4). These authors critiqued 32 articles written on this topic prior to 1969 and found that those articles which met most of the methodologic standards could show no benefit from anticoagulants while

TABLE 2

Purpose of anticoagulants in acute myocardial infarction

Prevent embolic phenomenon

Practicing physicians	23
Residents	11

Prevent deep vein thrombosis

Practicing physicians	1	19
Residents		9

Prevent extension of coronary thrombosis

Practicing physicians	7
Residents	1

Other

Practicing Physicians	2
Residents	1

TABLE 3

*American Heart Journal*, December, 1948. Wright, et. al.

	Treated	Untreated
800 patients	432	368
randomization	odd dates	even dates
anticoagulant	dicumarol 200-300mg daily	---
mortality	15% died	24% died
morbidity (thromboembolic)	11%	25%

Conclusion: All patients with coronary thrombosis should get anticoagulants.

TABLE 4

*New England Journal of Medicine*, February, 1969. Gifford and Feinstein.

1. Diagnostic criteria for myocardial infarction
2. Experimental trial
3. Concurrent controls
4. Hospital coordination
5. Random allocation
6. Stratified prognostic correlation
7. Diagnostic criteria for thromboembolism
8. Double blind technique

TABLE 5

*Archives of Internal Medicine*, October, 1974. Wessler, et al.

Consider: 2% mortality from thromboembolism  
80% effective therapy

To show a significant reduction in mortality you need 1,580 patients (treated and controls) and this would be at the 5% level of significance. If this is reduced to 1% level of significance you would need 2,910 patients.

If you consider death from ALL causes and try to measure a reduced mortality you have to increase the numbers even more:

5% level of significance	20,760
1% level of significance	38,220

# Medical Grand Rounds

TABLE 6

British Medical Journal, February 8, 1969.

	712 high dose	715 'low dose'
20% sat out of bed in two weeks		
mean number of days until out of bed = 21		
thromboembolic events diagnosed clinically*		
Type of Rx	High	Low
occlusion of syst. artery*	9	24
leg vein thrombosis*	11	30
PTE*	16	40
thromboembolism rate*	4.8	11.0
Autopsies		
Cerebral thrombosis or emboli	3	7
embolism to systemic artery	7	16
leg vein thrombosis	4	2
PTE	9	5
% patients with thromboembolism	23%	20%
"No significant difference in mortality but in thromboembolism"?		

TABLE 7

Journal of the American Medical Association, August 13, 1973. VA cooperative study

999 patients	500 treated	9.6% died
	499 untreated	11.2% died
No statistical difference.		
Lung scan evidence of PTE		
16% of 165 in untreated group		
10% of 164 in treated group		
No statistical difference.		
Marked decrease in cerebral thrombi		
Clinical thromboembolic events		
16 "certain," 3 probably in untreated group		
4 "certain," 0 probably in treated group		
Autopsy showed only two with cerebral infarction.		

those articles which fulfilled fewer of the standards tended to favor anticoagulants. Gross<sup>8</sup> and colleagues reviewed 11 articles from 1969 to 1972 using these same criteria and found the same thing that Gifford and Feinstein<sup>7</sup> found! As pointed out by Gifford and Feinstein<sup>7</sup> "either nature is inscrutable or man's best efforts to understand this subject have been poor."

Probably one of the reasons man's efforts have failed is that there has been little attention paid to statistical analysis of this problem. Wessler<sup>9</sup> pointed out in 1974 some of these shortcomings (Table 5) when he stated that if you assume a 2% mortality from thromboembolic disease in acute myocardial infarction you would need 1,580 patients to show a decrease in mortality at a 5% significance level with a therapy that was 80% effective. He further demonstrated that if you then consider a population of infarctions with many other causes of death, you would have to have a 20,760 patients to show a decrease in mortality at a 5% significance level! You can imagine how difficult it would be to have a study this large with all other treatment modalities equal.

**NOW THAT WE ALL KNOW** the pitfalls of doing a study of this nature, let's examine several of the more recent studies and their conclusions. One such study<sup>10</sup> which escaped the scrutiny of Gifford and Gross appeared in the British Medical Journal in 1969 and was a report from the British Committee on anticoagulant therapy. This study fulfills six of the eight methodologic standards and as you might guess it could show no decrease in mortality from the usage of anticoagulants in acute infarction (Table 6). The authors of this article did conclude that thromboembolic events could be reduced by anticoagulant therapy but this is somewhat questionable since the autopsy data showed no difference in incidence in the two groups.

In 1973, the VA cooperative group published a paper<sup>11</sup> in which they, too, met six of eight of the criteria and could show no difference in mortality. This article also stated that the incidence of thromboembolic phenomenon as judged clinically would be reduced by anticoagulation; however, in this study lung scans were performed for suspected pulmonary emboli, and there was no significant difference between the number of positives in either group! (Table 7).

Two articles<sup>12,13</sup> dealing with this topic appeared one year ago in the *New England Journal of Medicine* and were both retrospective studies which analyzed case fatality rates in acute myocardial infarction. The first<sup>12</sup> of these was from Israel and included 2,300 patients which showed a case fatality rate of 6.4% in 825 patients who received anticoagulants as compared to a rate of 17.2% of 1,217 who did not receive anticoagulants. The other study<sup>13</sup> was from a review of admissions to all Maryland hospitals over a one year period and included 1,156 patients. In this group the case fatality rate was 12.6% of 439 patients receiving anticoagulants as compared to 25% of 717 patients not receiving anticoagulants.

The editorial<sup>14</sup> in the same issue of this journal points out that probably the difference was that doctors gave anticoagulants to the group with the best prognosis. Evidence for this statement was that older patients were anticoagulated less frequently, and patients with the



greatest "severity factors" were anticoagulated less frequently. It is also interesting to note that neither of these studies mentioned the type of anticoagulants used nor to what extent the patients were anticoagulated.

**THE ONE THING** that almost all the authors seemed to agree on was that anticoagulants seemed to decrease the amount of deep vein thrombosis in acute myocardial infarction. Since the advent of I 125 fibrinogen scanning techniques, there have been studies which actually proved that anticoagulants decrease calf vein thrombosis in acute infarction. These studies have documented a range of incidence of deep vein thrombosis in acute myocardial infarction of 17 - 40% which is certainly a goodly number of patients (Table 8). The limitations of these studies are their small numbers and the differing management techniques of acute infarctions. Another problem with this data is that there is no proof that calf vein thrombosis correlates with thigh and pelvic thromboses which are the sources of most pulmonary emboli.

Handley and colleagues<sup>15</sup> looked at deep vein thrombosis as measured by I 125 fibrinogen scanning and compared no anticoagulation to full dose heparinization in 48 patients - 24 control and 24 treated. He found that no patients in the heparin group got positive scans while 29% of the untreated patients developed positive scans. Nicolaides, et. al<sup>16</sup> using heparin and coumadin versus no therapy found that only one of 18 patients developed positive scans.

Now I would like to turn to the so called "mini-dose" heparin regimen used to prevent deep vein thrombosis. Low doses of heparin work by activating an inhibitor to factor X. It has been shown that small doses of heparin raise the activity of the inhibitor to such a level that spontaneous clot formation is very unlikely; however, if a thrombotic process is already present the low dose heparin will not be sufficient to prevent further thrombosis due to the high levels of previously activated factor X. The initial studies with this method of preventing venous thrombosis were done in surgical patients in Britain, and I would like to review with you one<sup>17</sup> of the more recent of these studies.

In this cooperative study (Table 9), there were 4,121 patients and in this group there were 667 controls and 625 anticoagulated with mini-dose heparin who had I 125 fibrinogen scans. There was an incidence of deep vein thrombosis of 7.7% in the heparin group and 24.6% in the controls. In the autopsy series of 100 controls, there were 16 patients with pulmonary emboli and in the treated group of 80 autopsies only two had pulmonary emboli. Conclusions from this study were that low dose heparin decreased deep vein thrombosis and pulmonary emboli.

**CAN ONE ASSUME** that this data is valid in acute myocardial infarction? There are only three studies to date which have actually used "mini-dose" heparin in acute myocardial infarction (Table 10). The first<sup>18</sup> of these appeared in *Lancet* in 1972 by Handley who had 50 patients with acute infarction and gave 5000 units of heparin IV followed by 7,500 subcutaneously every twelve hours to 26 patients and used 24 as his control group. The incidence of deep vein thrombosis by I 125 scans in the treated group was 23% and in the control group was 29%. Since this was not statistically significant, he concluded that low dose heparin was of no benefit in acute infarction.

**TABLE 8**

DVT in acute myocardial infarction  
(calf vein thrombosis by I 125 scan)

British Medical Journal	May 20, 1972	7/24	29%
Lancet	Sept. 25, 1971	7/27	26%
Lancet	Oct. 17, 1970	12/35	34%
Lancet	Dec. 25, 1971	34/90	37%
British Medical Journal	Feb. 20, 1971	5/13	38%
Lancet	Oct. 27, 1973	11/64	17.2%
*Lancet	Sept. 25, 1972	7/24	29%
NESM	March 15, 1973	9/40	22.5%
	<b>TOTAL</b>	<b>85/293</b>	<b>29%</b>

**TABLE 9**

"Mini-dose heparin" to prevent DVT.

*Lancet*, July 12, 1975.

4,121 patients post operative  
2,076 patients control 2045 treated  
667 controls and 625 treated had I 125 scans  
24.6% of controls with + scans  
7.7% of treated with + scans

Autopsies: 100 control with 16 PTEs  
80 treated with 2 PTEs

**TABLE 10**

"Mini-Dose Heparin" in Acute Myocardial Infarction  
3 studies

- Lancet*, September 23, 1972 50 patients 20 treated  
24 controls

% incidence CVT control 29% treated 25%  
No significant difference  
5,000 IV initially, then 7,500 subcutaneous q 12 hours
- New England Journal of Medicine*, March 15, 1973

78 patients with suspected acute myocardial infarction  
40 controls 38 treated

% incidence DVT control 22.5% treated 2.6%  
5,000 subcutaneous q 8 hours
- Lancet*, October 27, 1973 146 patients 73 each group

19 patients withdrawn leaving 64 controls, 63 treated  
% incidence DVT control 17.2% treated 3.2%  
5,000 units subcutaneous q 12 hours

One of the problems with this study was that most of the patients did not receive the initial dose of heparin within the first four hours. The second study<sup>19</sup> appeared in 1973 and dealt with 78 patients with suspected myocardial infarction. Of those patients treated with 5,000 units of heparin subcutaneously every 8 hours only one of 38 developed a positive scan while 9 of 40 not on heparin developed a positive scan.

Also in 1973 Warlow<sup>20</sup> et al published a study of 127 patients with documented acute infarction who were randomized into treated and controls. They used 5,000 units subcutaneously every 12 hours and found that 17.2% of the untreated patients developed calf vein thrombosis by I 125 scan while only 3.2% of treated patients developed

calf vein thrombosis. It would appear from these studies that "low dose" heparin is beneficial in preventing deep vein thrombosis in acute myocardial infarction.

Well, now that we have reviewed the data, who should get what type anticoagulant in acute myocardial infarction? The following is my personal protocol:

1. All patients admitted with a diagnosis of acute myocardial infarction will get 5000 units of heparin subcutaneously every eight hours.

2. All patients with evidence of deep vein thrombosis on admission will be therapeutically anticoagulated with heparin and given oral anticoagulants.

3. All patients admitted with cardiogenic shock will be fully anticoagulated.

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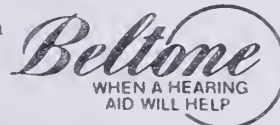
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# American Medicine during the Revolutionary Era

The year 1776 was an inauspicious time for medicine. No great, intellectual advances occurred, and there is no overt record of any remarkable feats of healing having been performed. Micro-organisms continued their indiscriminate activities as they had been doing for the preceding two billion years<sup>1</sup> and human kind continued to suffer and to die with physicians able to offer little by way of refinement to either of those processes. In biologic terms, 1776 was a very average year.

Some 75 years earlier, in 1701, Professor Herman Boerhaave had introduced the modern form of clinical instruction as "bedside teaching" at the Leiden School in the Netherlands. Pathology had just been born, circa 1740, due to the efforts of the Italian Morgagni who described and rationalized the anatomic location of disease according to morbid changes. Auenbrugger had further advanced the art of diagnosis by describing the principles of percussion and the clinical use of the technique in 1761. However the advent of the stethoscope, the practice of auscultation and other principles of the physical examination would have to await the genius of Laennec some half century later.

1776...fifty years previously Mather and Boylston had successfully demonstrated the efficacy of smallpox inoculation (the procedure would continue to be debated until Jenner published his definitive method of vaccination in 1796). Ignaz Philippe Semmelweis would not be born for another 52 years, and the principles of antiseptic surgery would not be introduced for almost another century. Primitive anesthesia would not be available for another seventy years and it would be another century and a half before the first x-ray expanded the physical limits of the physician's diagnostic vision.

## The Early Medical History Of the American People

The intermingling of American Indians, Europeans and African Negroes on the American Continent had prompted the observation that America became not only a melting pot of people but also of diseases. The indigenous Indian nations were profoundly affected and Cotton Mather of Boston and of smallpox inoculation fame, voiced the popular sentiment of his time in commenting that "as a result of epidemics the woods are almost cleared of pernicious creatures to make room for a better growth." The most feared disease outbreak among early settlers were those of "throat distemper" or diphtheria, and also of smallpox. The life expectancy at birth for early settlers has been estimated at being around 25 to 30 years. Medicine was primitive and at best inadequate. In the words of Shryock, "the most that can be claimed for the medical practice of the period was (i) moral or psychosomatic values, (ii) minor amelioration as in the use of opiates, (iii) the handling of structural emergencies, and (iv) occasional checks to contagion by severe quarantine regulations".<sup>2</sup>

The British did little to sponsor effective medicine in their American Colonies. For well over a century there were no medical schools, no medical societies and no



hospitals. America's first hospital, the Pennsylvania, was founded by Dr. Thomas Bond in 1752. In 1765 — eleven years before the Revolution, Dr. John Morgan founded the first American Medical School in Philadelphia. Prior to the latter event in 1760, New York had established the first examination and licensing program for physicians and subsequently in 1772 the New Jersey Medical Society was successful in establishing an examination board and licensure for that state with attendant penalties for those who violated the ordinance. This law was signed by Governor William F. Franklin, son of Benjamin Franklin.

Medical practice in early America was frequently criticized. Dr. Douglas, in 1753 stated that "frequently here ~~is~~ **more danger** from the physician than from the distemper...but sometimes not withstanding the malpractice nature gets the better of the doctor and the patient recovers." Dr. John Morgan, founder of America's first medical school, commented in 1765, "Many people receive no aid from medical science and even large towns harbor practitioners who are in a pitiful state of ignorance concerning their profession." Morgan, in describing the havoc wrought by these unscientific men, appealed to them to "hold their exterminating hands."

At the time of the Revolution, it has been estimated that there were about 3400 established medical practitioners in the American colonies and that not more than 400 of these had received any formal training. Of the latter, only about half, or barely more than five percent of the total, held degrees! Small wonder that the New York historian William Smith had commented a few years earlier that "A few physicians amongst us are eminent for their skill. Cranks abound like locusts in Egypt...."<sup>3</sup>

## Medicine and the Revolution

Physicians figured prominently during the American Revolution. As Dr. Israeloff has observed, "Five of the 56 signers of the Declaration of Independence were physicians, while 23 doctors served as members of the Provincial Congress of Massachusetts during 1774 and 1775. A doctor, Arthur L. Lee, served as Minister to France in 1776, while another physician, Dr. Samuel Holton, was President of Congress in 1780. In addition, a number of physicians during the Revolution served as major commanders of the line."<sup>4</sup>

George Washington wrote to Congress on July 21, 1774: "I have made inquiry into the establishment of a hospital and find it in a very unsettled position." The term "hospital" applied to the total medical organization of the Army. Congress responded to General Washington's letter by appointing a committee of three, Mr. Frank L. Lewis, New York, Mr. Robert T. Payne, Massachusetts, and Mr. Henry Middleton, South Carolina. This trio presented the first act of Continental Congress relating to a medical department on July 17, 1775, in the form of a resolution: "That for the establishment of a hospital for our Army, consisting of 20,000 men, the following officers and other attendants be appointed with the following allowances and pay. 1). Director-General Chief Physician, his pay \$4.00 per day.

2). Four surgeons, per day each one and one-third dollars. 3). One apothecary, one and one-third dollars a day. 4). Twenty mates, each per day two-thirds of a dollar. 5). One clerk, two-thirds of a dollar. 6). Two storekeepers each, four dollars per month. 7). One nurse to every ten sick, one dollar per fifteen days or two dollars per month. 8). Laborers occasionally.

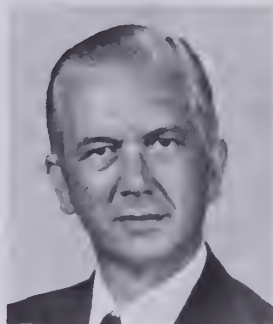
Approximately one month after the battle of Bunker Hill Dr. Benjamin Church was appointed first "Director-General Chief Physician" to the Army. Dr. Church, born in Newport, Rhode Island, graduated from Harvard in 1754 and was approximately 40-years-old at the time of his appointment. A most successful and well respected practitioner, it was a great shock to all who knew him, when after only a few weeks in office, Dr. Church was detected and subsequently convicted of being in correspondence with the British. This curious treason was treated with apparent leniency and Dr. Church eventually disappeared en route with his family to the West Indies, presumed lost at sea.

General Washington, sorely stressed in all areas of his campaign, chose Dr. John Morgan the founder of America's first medical school to replace Church as Medical Director to the Army. The stresses and intrigues of life at that time must have been considerable. A nation was being born and all that was best in that nation struggled to give assistance to the birth. Men like Dr. Morgan who were most properly fitted for the dignity and intellectual indulgence of academic life, were forced to grapple with the practical needs of a desperate army. After two years of struggle Dr. Morgan was overwhelmed by the bulk of the problems confronting him and political pressure brought about his dismissal and disgrace. In later years he was exonerated, but it is saddening to reflect on the pain which this treatment must have caused to so fine a gentleman.<sup>5</sup>

While bureaucracy was attempting to fulfill its role in providing medical care to the Army, soldiers in the field were suffering greater defeats from pestilence than from the British. James Flexner, in his book "Doctors on Horseback," concluded that, "Were it not for smallpox and the inadequacies of the medical department, Canada would probably now be a part of the United States." Washington wrote, "I am induced to believe that the apprehension of smallpox and its calamitous consequences have greatly retarded enlistments....I know it is more destructive to the Army in the natural way than the swords." Washington used the term "in the natural way" to distinguish contiguous infection from that deliberately caused by the immunization process. He was a great believer in the latter technique and in 1776 he ordered the establishment of innoculation hospitals at Morristown through which mass innoculation of the whole Army of the Jersey's was effected.

This was no small decision, for smallpox immunization under the worst circumstances could be associated with a seventy percent mortality or greater! However, the General was well aware that expert physicians were able to minimize the number of deaths occurring with innoculation and such was the case at Morristown.

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Nonetheless, the scourge continued to decimate American ranks. General Gates writing in 1776 commented, "As fine an Army has ever marched into Canada has this year been entirely ruined with smallpox. The line of retreat extended near 13 miles distance and a great part of them sick with smallpox...I am creditably informed no less than 30 captains died of it and not more than one in three that took it in the natural way lived." A member of the Congressional Committee investigating the defeat in Canada wrote, "Our misfortunes in Canada are enough to melt the heart of stone. The smallpox is ten times more terrible than the British, Canadians and Indians together. This was the cause of our precipitate retreat from Quebec."<sup>6</sup>

The disease knew no boundaries. Following the defeat of General Gates' Continentals at Camden, South Carolina (August 16, 1778) some 2000 American prisoners were taken and incarcerated aboard prison ships in Charlestowne Harbor; notorious amongst these was the British prison ship "Concord" aboard which smallpox was rampant. Within 13 months, 800 of the prisoners had lost their lives and borne dreadful testimony to the ruthless virulence of "the pox."<sup>7</sup>

#### Surgery During the Revolutionary War

Man was far less efficient than nature in creating morbidity during the Revolutionary War. Artillery had not yet learned to exploit the scythe-like effect of shrapnel against massed infantry, and musket-balls caused far more wounds than cannon-fire. In the absence of the bayonet, clubs, axes and knives were used to create a wide variety of casualties amongst both armies. Surgeons as well as their instruments were in short supply, the latter because importations had ceased and weapon production precluded the domestic manufacture of surgical hardware. Surgery of the battlefield was limited to tissue debridement, limb amputation and the trephining of fractured skulls.

In the light of the confused bureaucratic scene, it is not surprising that the American Army never succeeded in organizing an adequate line of medical supply. In addition, army hospitals were overcrowded and many patients succumbed to secondary contagion while being treated for their wounds. Physicians and surgeons working in these disease-ridden environs had a higher death rate than did the commanding officers.<sup>8</sup>

Americans had occasion to comment on the medical practices of their contemporaries from other lands. After the battle of Saratoga in 1777, Thatcher made these observations concerning British and Hessian surgeons: "I

have been present at some of their capital operation and remarked that the English surgeons performed with skill and dexterity, but the Germans, with few exceptions do no credit to their profession: some of them are the most uncouth and clumsy operators I ever witnessed, and appeared to be destitute of all sympathy and tenderness towards the suffering patient."

James Tilton commented on French surgeons and their patients after the surrender of Cornwallis at the battle of Williamsburg: "Their patients appear very neat and clean, above all examples I had ever seen. Each patient was accommodated with everything necessary, even to a night cap. Nevertheless, they were not more successful than we were. Even their wounded, with all the boasted dexterity of the French to aid them, were no more fortunate than ours."

From these accounts, it would appear that American surgeons of the 18th century compared well with the European colleagues!

#### Conclusion

A review of historical literature indicates that many of the earliest American medical practices were regarded as being backward, even when judged by standard which might have been applied generally at that time. In part, the cause can be found in the absence of professional support and leadership from the mother country, Britain. The youthful, far-flung colony of America had little appeal to the British medical fraternity, and instances of professional neglect at that time have had their expression to this day, as in the lack of a coordinated and standardized national policy for medical licensure. Nevertheless, much originality and strength of ideas occurred in the New World during the early years of settlement. American "know-how," demonstrating the pragmatic concerns of an aspiring nation is vividly reflected in the successful institution of massive smallpox inoculation for the American Army 20 years before Jenner published his findings.

During the revolutionary struggle, American physicians were prominent both on and off the battlefield. American surgeons cared for their wounded with no lesser results than their European contemporaries and there was no lack of commitment or self-sacrifice. The severe mortality figures for medical personnel bear harsh witness to the humanistic and patriotic dedication of the profession in eighteenth century America. ■

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PRIOR TO the establishment of the University of South Alabama College of Medicine, a residency program in obstetrics and gynecology had functioned for several years at the Mobile General Hospital. Approved for a total of six residents, it was responsible for the care of over 2,000 pregnant women annually as well as a large gynecology service including family planning and gynecologic oncology programs. It was closely linked with a State and Federally supported and administered Maternal-Infant Care Project.

The majority of the practicing obstetricians and gynecologists in the community served as consultants and teachers. The hospital had been designated as a Regional Tumor Center by the State Health Department and frequently functioned as a referral center for critically ill patients from the surrounding geographic area.

The Department of Obstetrics and Gynecology of the College of Medicine, on its arrival, was thus enabled to direct its efforts toward establishing a progressive teaching, service, and research program by building on a rather broad pre-existing base consisting of an obligatory service commitment and a postgraduate educational tradition. In the almost three years since establishing the clinical department of the medical school, numerous changes have occurred which have reflected the following goals of the Department of Obstetrics and Gynecology:

- (1) service to the community and the practicing obstetricians;
- (2) expansion of the postgraduate program of education;
- (3) development of an undergraduate clerkship;
- (4) recruitment of a faculty comprised of voluntary "generalists" in obstetrics and gynecology, and fulltime faculty of sub-specialists who, by their training and interest, could provide in-depth education to students and expert consultation to the practicing physicians both locally and in the surrounding counties;
- (5) creation of facilities for patient care and education requiring a special funding and staffing;
- (6) the fostering of a desire and capacity for research in physiologic and pathologic processes as well as into better ways to educate a range of health professionals in the delivery of care to the entire spectrum of patients encountered.

FOR THE CLINICAL department to effectively discharge its teaching obligations to undergraduate and graduate students, an interested and involved faculty working in well-equipped facilities and caring for an adequate number of patients presenting with a variety of problems is essential. Unlike in many developing schools, the department in the University of South Alabama finds itself in good circumstances in almost all of these respects. The practicing physicians have been supportive from the beginning and are involved in medical student and resident education and have assisted greatly the small, developing fulltime faculty. A reproductive endocrinologist has joined the faculty, bringing unique clinical and laboratory investigative and

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DEAN, UNIVERSITY OF SOUTH ALABAMA  
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therapeutic skills to southern Alabama. A gynecologic oncologist will soon be in the Medical Center offering much needed expertise, and sub-specialists in perinatology, willing to devote fulltime efforts to investigation of and special care for the many high-risk pregnant patients with which this area is endowed, are being recruited actively.

The medical student first receives intensive instruction in obstetrics and gynecology during an eight-week clerkship in the third year of school. Instruction is divided equally between obstetrics and gynecology with emphasis being placed on physiology and pathology of reproduction, fundamentals of family planning, disorders peculiar to women, and gynecologic oncology and endocrinology.

IN THE SENIOR YEAR, four-week elective clerkships are available in reproductive endocrinology with clinical and laboratory orientation and in obstetrics and gynecology wherein the student functions at an intern level. Clerkships in office practice and gynecologic oncology will soon be available. The student obtains considerable obstetrical experience in the labor and delivery suite and in out-patient clinics as well as broad contact with a variety of gynecologic problems in the clinic, on the ward, and in the operating room.

At the postgraduate level, the residency program now extends for four years and has been approved for four positions at each year. The first year is made up of four months of obstetrics and gynecology, two months of Emergency Room, three months of general medicine, one month of newborn-pediatrics, and one month of an elective. The next three years are divided equally between obstetrics and gynecology with a three-month elective block in the third postgraduate year. In the near future, it is anticipated that family practice residents will be receiving training on this service.

Recognizing the certainty that although obstetrics and gynecology is a primary care discipline and it can fulfill that function in only a limited way in Alabama for the foreseeable future, the department feels a strong responsibility to educate not only future physi-

## DEAN'S REPORT

cian specialists but also to develop training programs in pregnancy care, cancer detection, and family planning for nurses who will be educated to work closely with physicians and not in most circumstances as independent practitioners. Patterns of referral from relatively isolated as well as adjacent areas need to be developed which will be beneficial to patient and physician alike, realistically financed, and established because of educational activities and specialized skills and services which can be offered by a modern and fully staffed obstetrical and gynecological facility.

**AT THE PRESENT TIME**, the in-patient facilities include 52 semi-private beds on the third floor of the hospital, eight labor beds, and three delivery rooms which are fully electronically monitored, and a superbly equipped and staffed Regional Intensive Care Nursery. A toll free "Hotline" has been installed for immediate obstetric and pediatric consultation. One year ago the National Foundation equipped the obstetrical floor with ultrasound facilities comparable to those which could be found in any medical center in the country. This equipment has been invaluable in assessing fetal and maternal problems and in safely and accurately performing amniocentesis in cooperation

with the Department of Genetics, a use for which it is expected it will be increasingly utilized.

For the improved study and care of the gynecologic patient, a colposcopy unit has been established which now services upwards of 350 patients per year who are referred for evaluation of suspected cervical carcinoma in its earliest stages. A laboratory of reproductive endocrinology is functioning and capable of sophisticated assays of protein and steroid hormones of use in patient care and research. Further expansion of the obstetrical facilities is planned for the near future.

Through innovative and cooperative utilization of service, educational, and research capabilities of a university department of obstetrics and gynecology by all persons concerned with maternal and infant care, a measurable impact might well be made on the enormous problems which surround human reproduction in contemporary America. While the Department of Obstetrics and Gynecology is yet a fledgling, it has a major educational task and is committed to a concept, not original to it, that the only privileged classes in our society should be mothers and children. In the 19th century, a Scottish obstetrician named Buchan stated it another way, "There is no higher calling for the investment of our personal efforts, or the expenditure of our general revenues than insuring the production of a healthy generation." ■

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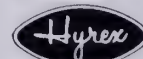
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## Roster Supplement

### new members

#### AUTAUGA COUNTY

CRAWFORD, Raymond Shelton, III, b 46, mc Arkansas 71, recip. Arkansas 71, 562-B Adler Street, Maxwell AFB, Montgomery 36113. S.

#### CALHOUN COUNTY

CURTIN, Richard Augustin, b 41, mc Georgetown 67, recip. NBME 68, 2630 Lynn Road Anniston 36201. S.

KISICKI, James Creighton, b 43, mc Nebraska 71, recip. NBME 72, P. O. Box 2208, Anniston 36201.

MOOREHOUSE, John David, b 46, mc New Mexico 72, recip. NBME 73, P. O. Box 2208, Anniston 36201.

REDDY, Moolamalla R., b 49, mc India 73, Limited License 76, P. O. Box 2208, Anniston 36201.

UFFORD, Raymond C., b 48, mc Tenn. 76, Limited License 76, P. O. Box 2208, Anniston 36201.

#### COLBERT COUNTY

McKINLEY, David Parks, b 43, mc Ala. 69, recip. NBME 70, 505 N. Columbia Avenue, Sheffield 35660. S.

SUMMER, Robert Ovestus, b 18, mc S. C. 55, recip. S. C. 55, 307 West Pasadena Ave., Muscle Shoals 35660.

#### CULLMAN COUNTY

DAVIS, James Willard, b 44, mc Va. 71, recip. NBME 72, 205 4th Ave., NE, Cullman 35055. U.

#### HOUSTON COUNTY

PRIM, Harry Samuel, Jr., b 43, mc Ala. 68, recip. NBME 69, 1900 Fairview Avenue, Dothan 36301. R.

#### JEFFERSON COUNTY

ANDERSON, Bernard Bradley, b 44, mc Howard 70, recip. NBME 71, 5202 Valley Rd., Fairfield 35064. S.

CAPLASII, Vijay Kumar, b 41, mc Gov't. Medical College, Rohtak, India 66, recip. Kentucky 75, 8010 2nd Ave., South, Birmingham 35206. I.

DIKE, Chinyere Wogu, b 43, mc Howard 71, recip. D. C. 74, 4500 Horace Drive, Birmingham 35221. Pd.

DIKE, Nnamdi Alozie, b 41, mc Howard 70, recip. NBME 71, 5202 Valley Rd., Fairfield 35064. S.

ELKUS, Richard Alan, b 42, mc Tenn. 69, recip. Tenn. 70, 1023 20th Street, S., Suite 418, Birmingham 35205. S.

HILLMAN, Robert Arnold, Jr., b 45, mc Ala. 74, recip. NBME 75, 120 West Glenwood, Birmingham 35209.

LEMAK, Lawrence John, b 43, mc Ala. 69, recip. NBME 70, 1529 N. 25th Street, Birmingham 35234. Or.

STREICHER, Robert E., b 31, mc N. Y. 56, recip. NBME 58, 1529 25th Street, North, Birmingham 35234. Pl.

TRICK, Thomas Lee, b 47, mc Indiana 73, recip. Indiana 73, 801 Princeton Ave., SW, Birmingham 35211. I.

ZORN, George Luey, Jr., b 43, mc Emory 68, recip. Ga. 69, UAB Station, Birmingham, 35294. S.

#### LEE COUNTY

SPENCER, Derek Victor, b 34, mc Howard 67, recip. U. S. Virgin Islands 70, 1406 Fitzpatrick Ave., Opelika 36801. GP.

#### MACON COUNTY

GAILLARD, Wendell Elliott, Jr., b 44, mc Howard 70, recip. NBME 72, 301 North Church St., Tuskegee. 36083. S.

#### MADISON COUNTY

BALL, Charles Albert, b 51, mc Tenn. 76, Limited License 76, 201 Governors Dr., Huntsville 35801. FP.

BLEVINS, Jerry Christopher, b 49, mc Tenn. 76, Limited License 76, 201 Governors Dr., Huntsville 35801. FP.

FAIL, Benjamin Steward, b 45, mc Wisconsin 76, Limited License 76, 201 Governors Dr., Huntsville 35801. FP.

FITE, Larry Charles, b 51, mc Ala. 76, Limited License 76, 201 Governors Dr., Huntsville 35801. FP.

GERMANN, Joseph Rene, b 44, mc Ala. 76, Limited License 76, 201 Governors Dr., Huntsville 35801. FP.

GRAHAM, Jerry Michael, b 44, mc Louisville 75, recip. NBME 76, East Madison Shopping Center, Madison 35758. FP.

HARRIS, Joan, b 50, mc Ala. 76, Limited License 76, 201 Governors Dr., Huntsville 35801. FP.

KINZER, Claude Louis, b 51, mc Tenn. 76, Limited License 76, 201 Governors Dr., Huntsville 35801. FP.

MIZE, Shannon, b 50, mc Ga. 76, Limited License 76, 201 Governors Drive, Huntsville, 35801. FP.

PEYTON, Erwin Harry, Jr., b 49, mc Miss. 76, Limited License 76, 201 Governors Dr., Huntsville 35801. FP.

PIERSMA, John Dale, b 46, mc South Dakota 74, Limited License 76, 201 Governors Dr., Huntsville 35801. FP.

SALYER, John Raymond, Jr., b 49, mc Tenn. 76, Limited License 76, 201 Governors Dr., Huntsville 35801. FP.

SOX, Frances Harper, b 43, mc Ala. 76, Limited License 76, 201 Governors Dr., Huntsville 35801. FP.

#### MARSHALL COUNTY

ISLEY, Robert Arnold, b 47, mc John Hopkins 73, recip. Md. 73, 2308 Magnolia St., P. O. Box 327, Guntersville 35976. Pd.

LYRENE, Raymond Kenneth, b 45, mc Ala. 70, recip. NBME 71, 2308 Magnolia Street, P. O. Box 327, Guntersville 35976. Pd.

PACKARD, John Mallory, Jr., b 47, mc Ala. 73, recip. NBME 74, 2308 Magnolia Street, P. O. Box 327, Guntersville 35976. Pd.

#### MOBILE COUNTY

BRYARS, William Carter, Jr., b 46, mc Ala. 72, recip. NBME 73, 1359 Springhill Ave., Mobile 36604.

MILLER, Samuel Carter, Sr., b 42, mc Ala. 70, recip. NBME 71, 2457 Fillingim St., Mobile 36617.

THOMPSON, Jack Hutchinson, b 44, mc Ala. 69, recip. NBME 70, 655 Stanton Rd., Mobile 36617.

WERTELECKI, Wladimir, b 36, mc Buenos Aires 61, recip. S. C. 71, 2457 Fillingim St., Mobile 36617. Pd.

#### MORGAN COUNTY

BOOZER, Richard Michael, b 44, mc Emory 70, recip. Ga. 1122 13th Ave., SE., Decatur 35601. I.



WORKMAN, Ronald Bruce, b 43, ne Vanderbilt 69, recip. NBME 70, 1121 Somerville Rd., SE, Suite No. 5, Decatur 35601.

**address changes**

**CALHOUN COUNTY**

WHITEHEAD, William A., present Ft. McClellan to 3809 Alderwood, Temple, Texas 76501.

**CHAMBERS COUNTY**

CAMM, Gertrude E., present Langdale to 96 Georgian Terrace, West Point, Ga., 3183.

**CHEROKEE COUNTY**

ADAMS, John G., present Centre to Marshall Medical Clinic, 402 S. Bolobar, Marshall, Texas 75670.

**ELMORE COUNTY**

BENSON, Joseph R., present Wetumpka to 1200 Company Street, Wetumpka 36092.

**ETOWAH COUNTY**

FRANTZ, William E., present Gadsden to Noojin Bldg., 520 Chestnut St., Suite 401, Gadsden 35901.

**FRANKLIN COUNTY**

WISE, David Miller, present Red Bay to 163 A Spindriff, Carmel, California 93921.

**JEFFERSON COUNTY**

BENTON, John W., Jr., present Birmingham to 1601 Sixth Ave., S., Birmingham 3523.

COSBY, Joseph C., present Birmingham to P. O. Box 1207, Gadsden 35902.

GLENN, E. B., present Birmingham to 2660 10th Ave., South, Suite 240, Birmingham 35205.

GOLDBLATT, Edward L., present Birmingham to 2045 Brookwood Medical Center Dr., Birmingham 35209.

LEWIS, Irwin, present Birmingham to 2018 Brookwood Medical Center Dr., Suite 300, Birmingham 35209.

NABERS, Hugh C., present Birmingham to 2018 Brookwood Medical Center Dr., Birmingham 35209.

POWELL, Clifford P., present Birmingham to P. O. Box 7666 A, Birmingham 3523.

**LAWRENCE COUNTY**

HALL, Garland C., Jr., present

Moulton to 204 Hospital St., Suite C, Moulton 35650.

IRWIN, Willard W., present Moulton to 211 South Main St., Moulton 35650.

**LEE COUNTY**

HILLER, Edgar E., present Auburn to 3700 Foxford Circle, Tallahassee, Fla. 32302.

**MADISON COUNTY**

FINCH, Ricard A., present Huntsville to 813 Franklin St., Huntsville 35801.

HEALD, David Grant, present Huntsville to 201 Governors Dr., Huntsville 35801.

**MOBILE COUNTY**

DEVANE, Frederick H., present Mobile to 252 South McGregor Ave., Mobile 36608.

EWING, John S., Jr., present Mobile to 251 Cox St., Mobile 36604.

KIMMICH, Haydee, present Mobile to 16 Willow Brook East Borough, Wichita, Kansas 67207.

KIMMICH, Homer M., present Mobile to 16 Willow Brook East Borough, Wichita, Kansas 67207.

MCCULLOUGH, David L., present Mobile to 1720 Springhill Ave., Suite 203, Mobile 36604.

**MONTGOMERY COUNTY**

ALLEN, Robert P., present Montgomery to 4052 Apt. C., Amesbury Dr., Montgomery 36116.

BRADFORD, George T., present Montgomery to 1722 Pine Street, Montgomery 36106.

BRANCH, John L., present Montgomery to 2070 Hazel Hedge Lane, Montgomery 36106.

CAMERON, John M., present Montgomery to 2055 Normandie Dr., Suite 214, Montgomery 36111.

CAPPELLUZZO, Vincent P., present Montgomery to 2055 Normandie Dr., Suite 300, Montgomery 36111.

HODNETT, Cary G., present Montgomery to 2055 Normandie Dr., Montgomery 36111.

JEHLE, Lawrence T., Jr., present Montgomery to 2055 Normandie Dr., Suite 308, Montgomery 36111.

KAPLAN, Michael, present Montgomery to 12050 S.W. 71st Court, Miami, Fla. 33156.

KIMBROUGH, John G., present Montgomery to 2055 Normandie Dr., Montgomery 36111.

MERTINS, Paul S., present Montgomery to 1722 Pine St., Suite 301, Montgomery 36106.

SHADBURN, William B., present Montgomery to 2055 Normandie Dr., Suite 214, Montgomery 36111.

TILL, Harry J., present Montgomery to 2055 Normandie Dr., Suite 214, Montgomery 36111.

**TUSCALOOSA COUNTY**

DONALD, Robert H., present Tuscaloosa to 1058 S. Cumberland St., Radio Center, Morristown, Tenn. 37814.

NELSON, Robert Jr., present Tuscaloosa to 138 Covery Chase, Tuscaloosa 35401.

**TALLADEGA COUNTY**

NICKERSON, Paul, present Sylacauga to 114 South Main Ave., Sylacauga 35150.

**WALKER COUNTY**

SAHIBZADA, Abhur R., present Jasper to P. O. Box 1545, Jasper 35501.

**transferred**

**DALE COUNTY**

SNYDER, Arthur F., 106 Dexter Circle, Ozark 36360. From Lauderdale County Medical Society.

**specialty changes**

**MORGAN COUNTY**

FORD, Lawrence G., specialty Urology

**TUSCALOOSA COUNTY**

MCLEOD, John C., Jr., specialty — Internal Medicine

**deceased**

**LAWRENCE COUNTY**

USSERY, James A. — October 1976.

**new phone numbers**

ANDERSON, B. B.  
Calhoun ..... 780-2037  
BALL, C. A.,  
Madison ..... 539-2954

CONTINUED ON PAGE 55

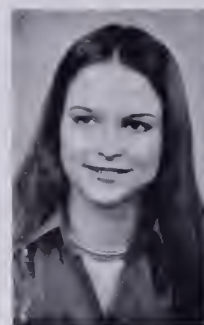
## New physicians licensed to practice in Alabama



**Akins, Charles Dormer, M.D.**, University of Tennessee College of Medicine, 1973. Reciprocity with Tennessee (FLEX). Location: Centre.



**Blaudeau, Guy Elie, M.D.**, Albany Medical College (New York), 1970. Reciprocity with New York (FLEX). Specialty: Ob/Gyn. Location: Birmingham.



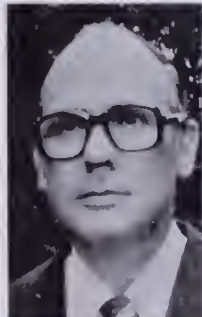
**Brown, Ellen Andrews, M.D.**, University of Alabama School of Medicine, 1975. Reciprocity with National Board of Medical Examiners. Location: Birmingham.



**Burlingame, Mark Wayne, M.D.**, Creighton University School of Medicine, 1975. Reciprocity with National Board of Medical Examiners. Location: Birmingham.



**Basa, Jose Lugay, M.D.**, Cebu Institute of Medicine (Philippines), 1965. Reciprocity with Ohio (FLEX). Specialty: General Surgery. Location: Abbeville.



**Blethen, Harry Samson, Jr., M.D.**, Medical College of Virginia, 1955. Reciprocity with Virginia. Specialty: Pediatrics. Location: Woodland.



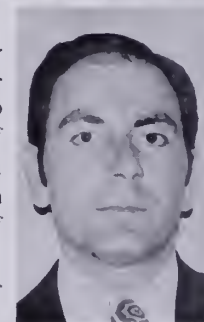
**Chang-Poon, Vivien Yune-Hwa, M.D.**, University of Hong Kong Faculty of Medicine, 1968. Reciprocity with Ohio (FLEX). Specialty: Pathology. Location: Birmingham.



**Bell, Brenda Beriman, M.D.**, University of Alabama School of Medicine, 1974. Reciprocity with National Board of Medical Examiners. Location: Birmingham.



**Brau, Ricardo Herminio, M.D.**, University of Puerto Rico School of Medicine, 1975. Reciprocity with National Board of Medical Examiners. Location: Birmingham.



**Cirincione, Robert Joseph, M.D.**, SUNY Upstate Medical Center College of Medicine, 1971. Reciprocity with National Board of Medical Examiners. Specialty: Orthopedic Surgery. Location: Birmingham.



**Benton, Jay Thomas, M.D.**, University of Alabama School of Medicine, 1974. State Board Examination.



**Bream, Peter Reynolds, M.D.**, University of North Carolina School of Medicine, 1972. Reciprocity with North Carolina (FLEX). Specialty: Diagnostic Radiology. Location: Birmingham.



**Cloud, Thomas Calvin, III, M.D.**, Emory University School of Medicine, 1975. Reciprocity with National Board of Medical Examiners. Location: Hobson City.





**Collins, Terence Roger, M.D.,** Creighton University School of Medicine, 1962. Reciprocity with National Board of Medical Examiners. Specialty: Preventive Medicine. Location: Tuscaloosa.



**Del Porto, George Bernard, M.D.,** Vanderbilt University School of Medicine, 1971. Reciprocity with National Board of Medical Examiners. Specialty: Urology. Location: Montgomery.



**Fountain, Edward Allen, M.D.,** University of Alabama School of Medicine, 1974. Reciprocity with National Board of Medical Examiners. Location: Birmingham.



**Corry, Robert Decker, M.D.,** University of Utah College of Medicine, 1974. Reciprocity with National Board of Medical Examiners.



**Derrick, Bobby Lee, M.D.,** University of Arkansas College of Medicine, 1971. Reciprocity with Arkansas. Specialty: General Surgery. Location: Ft. McClellan.



**Gaillard, Wendell Elliott, Jr., M.D.,** Howard University College of Medicine, 1970. Reciprocity with National Board of Medical Examiners. Specialty: General Surgery. Location: Tuskegee.



**Crews, Eugene Lyndon, III, M.D.,** Washington University School of Medicine, 1970. Reciprocity with Missouri. Specialty: Psychiatry. Location: Birmingham.



**Dodgen, Charles Wayne, M.D.,** Medical College of Georgia, 1974. Reciprocity with Georgia (FLEX).



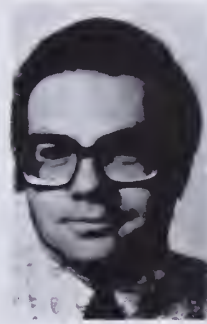
**Haldeman, Larry William, M.D.,** University of Florida College of Medicine, 1975. Reciprocity with National Board of Medical Examiners. Location: Birmingham.



**Damm, Robert Lee, M.D.,** University of Maryland School of Medicine, 1958. Reciprocity with Maryland. Location: Birmingham-Montgomery area.



**Doster, Vernon Webb, M.D.,** Medical College of Georgia, 1975. Reciprocity with National Board of Medical Examiners.



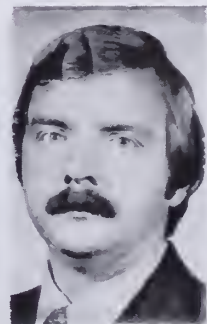
**Harwood, Steven John, M.D.,** University of Alabama School of Medicine, 1975. Reciprocity with National Board of Medical Examiners. Location: Birmingham.



**Davies, Terence Carman, M.D.,** University of Manchester Faculty of Medicine, 1959. Reciprocity with South Carolina (FLEX). Specialty: Family Practice. Location: Mobile.



**England, Leslie Ellsworth, M.D.,** LSU School of Medicine, 1975. Reciprocity with Louisiana (FLEX). Location: Birmingham.



**Higgs, William Robert, M.D.,** Baylor College of Medicine, 1969. Reciprocity with Texas. Specialty: Cardiovascular and Thoracic Surgery. Location: Mobile.



**Hope, John Malcolm, M.D.**, Temple University Medical School, 1975. Reciprocity with U. S. Army Commission. Location: Enterprise.



**Kerr, Vicky Elmira, M.D.**, George Washington University School of Medicine, 1974. Reciprocity with National Board of Medical Examiners. Location: Hayneville.



**Kohaut, Edward Charles, M.D.**, New Jersey College of Medicine and Surgery, 1967. Reciprocity with Texas. Specialty: Pediatrics & Pediatric Nephrology. Location: Birmingham.



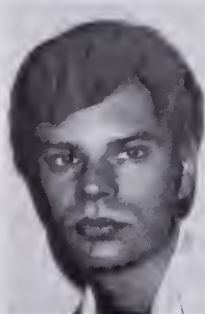
**Hymes, Citty Lillette, M.D.**, LSU School of Medicine (New Orleans), 1974. State Board Examination. Location: Mobile.



**Kile, Dale Leverage, Jr., M.D.**, Ohio State University College of Medicine, 1973. Reciprocity with National Board of Medical Examiners. Specialty: Pediatrics. Location: Langdale.



**Lyle, James Edwin, III, M.D.**, University of Alabama School of Medicine, 1975. Reciprocity with National Board of Medical Examiners.



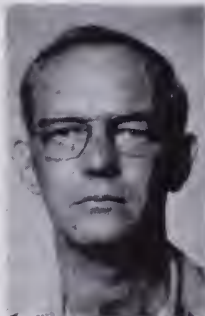
**Hyman, Bruce Gregory, M.D.**, University of Cincinnati College of Medicine, 1972. Reciprocity with National Board of Medical Examiners. Specialty: Internal Medicine. Location: Anniston.



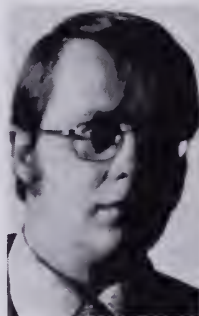
**Kirkpatrick, Palmer Morgan, Jr., M.D.**, University of South Carolina Medical College, 1970. Reciprocity with National Board of Medical Examiners. Specialty: Internal Medicine. Location: Birmingham.



**Marley, Bouldin Alcorn, Jr., M.D.**, University of Mississippi School of Medicine, 1975. Reciprocity with Mississippi (FLEX). Location: Mobile.



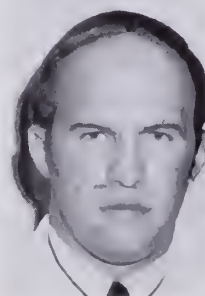
**Johnson, David Edward, M.D.**, Indiana University School of Medicine, 1967. Reciprocity with Indiana. Specialty: Pulmonary Diseases & Internal Medicine. Location: Anniston.



**Kisicki, James Creighton, M.D.**, University of Nebraska College of Medicine, 1971. Reciprocity with National Board of Medical Examiners. Location: Anniston.



**McCarthy, Michael Joseph, M.D.**, University of Tennessee College of Medicine, 1973. Reciprocity with Tennessee (FLEX). Location: Huntsville.



**Jones, Bruce McAlpin, M.D.**, University of Mississippi School of Medicine, 1971. Reciprocity with Georgia (FLEX).



**Kiteles, Francis John, M.D.**, Howard University College of Medicine, 1967. Reciprocity with Pennsylvania (FLEX). Specialty: General Surgery. Location: Anniston.



**McCorvey, Roosevelt, M.D.**, Jefferson Medical College, 1973. Reciprocity with National Board of Medical Examiners. Specialty: Ob/Gyn. Location: Montgomery.





**McElvein, Richard Burr, M.D.**, Tufts University School of Medicine, 1951. Reciprocity with National Board of Medical Examiners. Specialty: Thoracic Surgery. Location: Birmingham.



**Monahan, Paul Philip, M.D.**, University of Minnesota Medical School, 1974. Reciprocity with National Board of Medical Examiners.



**Oswalt, Guy Coleman, Jr., M.D.**, University of Alabama School of Medicine, 1974. Reciprocity with National Board of Medical Examiners. Specialty: Urology. Location: Birmingham.



**McGehee, William Park, M.D.**, University of Alabama School of Medicine, 1975. Reciprocity with National Board of Medical Examiners. Location: Birmingham.



**Moreno, Hernan, M.D.**, University Del Valle-Facultad De Medicina (Columbia), 1963. State Board Examination. Specialty: Hematology-Oncology; Pediatrics. Location: Birmingham.



**Owens, Robert Earle, M.D.**, LSU School of Medicine, 1975. Reciprocity with Louisiana (FLEX). Location: Birmingham.



**McKenzie, Lusanne Craddock Lilly, M.D.**, Vanderbilt University Medical School, 1970. Reciprocity with National Board of Medical Examiners. Specialty: Hematology-Oncology; Pediatrics. Location: Huntsville.



**Morley, Roswell Charles, Jr., M.D.**, University of Texas Medical Branch, 1971. Reciprocity with Texas. Specialty: Orthopedic Surgery. Location: Huntsville.



**Owensby, Loren Cook, M.D.**, University of Alabama School of Medicine, 1973. Reciprocity with National Board of Medical Examiners. Specialty: Internal Medicine.



**Mihis, Anastasios Athansios, M.D.**, University of Athens Medical School (Greece), 1967. Reciprocity with Georgia (FLEX). Specialty: Internal Medicine & Gastroenterology. Location: Birmingham.



**Namey, Thomas Curtis, M.D.**, Washington University School of Medicine, 1973. Reciprocity with National Board of Medical Examiners. Specialty: Rheumatology & Immunology. Location: Birmingham.



**Patton, Rita Williams, M.D.**, University of Alabama School of Medicine, 1974. Reciprocity with National Board of Medical Examiners. Location: Birmingham.



**Mirelman, Simon, M.D.**, University of Chile Medical School, 1969. Reciprocity with District of Columbia (FLEX). Specialty: Urology. Location: Birmingham.



**Nelson, Kathleen Gail, M.D.**, New York Medical College, 1971. Reciprocity with National Board of Medical Examiners. Specialty: Pediatrics. Location: Birmingham.



**Pearson, Jane, M.D.**, University of Alabama School of Medicine, 1974. Reciprocity with National Board of Medical Examiners. Location: Birmingham.

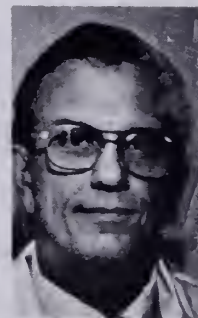
## AROUND THE STATE



**Peck, Gary Quinton, M.D.**, LSU School of Medicine (New Orleans), 1974. Reciprocity with National Board of Medical Examiners. Location: Gulf Shores-Foley area.



**Rankin, Thomas Prather, M.D.**, University of Louisville School of Medicine, 1975. Reciprocity with National Board of Medical Examiners. Location: Birmingham.



**Roe, Thomas Vance, M.D.**, Tennessee College of Medicine (Memphis), 1956. Reciprocity with Tennessee. Location: Florence.



**Phillips, James Robert, M.D.**, University of Alabama School of Medicine, 1975. Reciprocity with National Board of Medical Examiners. Location: Mobile.



**Reece, Orvil Young, Jr., M.D.**, University of Alabama School of Medicine, 1975. Reciprocity with National Board of Medical Examiners. Location: Birmingham.



**Roof, Jonathan Buist, M.D.**, Medical College of Georgia, 1974. Reciprocity with National Board of Medical Examiners.



**Poon, Man-Chiu, M.D.**, University of British Columbia Faculty of Medicine (Canada), 1968. Reciprocity with National Board of Medical Examiners. Specialty: Internal Medicine & Hematology-Oncology. Location: Birmingham.



**Reeves, Linda M. Parker, M.D.**, University of Alabama School of Medicine, 1975. Reciprocity with National Board of Medical Examiners. Location: Birmingham.



**Rutner, Alan Croel, M.D.**, New York University School of Medicine, 1973. Reciprocity with National Board of Medical Examiners. Specialty: Internal Medicine. Location: Tuscaloosa.



**Primm, Richard Kirby, M.D.**, University of North Carolina School of Medicine, 1970. Reciprocity with North Carolina. Specialty: Internal Medicine. Location: Birmingham.



**Reimer, Daniel Edward, M.D.**, University of Alabama School of Medicine, 1975. Reciprocity with National Board of Medical Examiners. Location: Mobile County.



**Sheppard, Raymond Larry, M.D.**, LSU School of Medicine, 1970. Reciprocity with Louisiana. Specialty: Ob/Gyn. Location: Huntsville.



**Raff, Sandra Beth, M.D.**, New York Medical College, 1971. Reciprocity with National Board of Medical Examiners. Specialty: Internal Medicine. Location: Tuscaloosa.



**Reyes, Luis Encarnacion, M.D.**, Faculty of Medicine, University of Santo Tomas (Manila), 1967. Reciprocity with California (FLEX). Specialty: General Surgery. Location: Pell City.



**Smolowitz, Edwin Larry, M.D.**, Medical College of Virginia, 1975. Reciprocity with National Board of Medical Examiners. Location: Birmingham.



# Famous Fighters



## NEOSPORIN® Ointment (polymyxin B-bacitracin-neomycin) is a famous fighter, too.

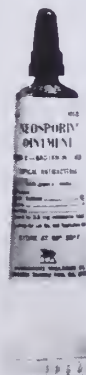
Provides overlapping, broad-spectrum antibacterial action to help combat infection caused by common susceptible pathogens (including staph and strep).

Each gram contains: Aerosporin® brand Polymyxin B Sulfate 5,000 units; zinc bacitracin 400 units; neomycin sulfate 5 mg (equivalent to 3.5 mg neomycin base); special white petrolatum qs in tubes of 1 oz and 1/2 oz and 1/32 oz (approx.) foil packets.

**INDICATIONS:** Therapeutically (as an adjunct to systemic therapy when indicated) for topical infections, primary or secondary, due to susceptible organisms, as in: • infected burns, skin grafts, surgical incisions, otitis externa • primary pyoderma (impetigo, ecthyma, sycosis vulgaris, paronychia) • secondarily infected dermatoses (eczema, herpes, and seborrheic dermatitis) • traumatic lesions, inflamed or suppurating as a result of bacterial infection.

**Prophylactically,** the ointment may be used to prevent bacterial contamination in burns, skin grafts, incisions, and other clean lesions. For abrasions, minor cuts and wounds accidentally incurred, its use may prevent the development of infection and permit wound healing. **CONTRAINDICATIONS:** Not for use in the eyes or external ear canal if the eardrum is perforated. This product is contraindicated in those individuals who have shown hypersensitivity to any of the components.

**WARNING:** Because of the potential hazard of nephrotoxicity and ototoxicity due to



neomycin, care should be exercised when using this product in treating extensive burns, trophic ulceration and other extensive conditions where absorption of neomycin is possible. In burns where more than 20 percent of the body surface is affected, especially if the patient has impaired renal function or is receiving other aminoglycoside antibiotics concurrently, not more than one application a day is recommended. **PRECAUTIONS:** As with other antibacterial preparations, prolonged use may result in overgrowth of nonsusceptible organisms, including fungi. Appropriate measures should be taken if this occurs. **ADVERSE REACTIONS:** Neomycin is a not uncommon cutaneous sensitizer. Articles in the current literature indicate an increase in the prevalence of persons allergic to neomycin. Ototoxicity and nephrotoxicity have been reported (see Warning section).

Complete literature available on request from Professional Services Dept. PML.



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## Physicians' placement service in Alabama

*The Medical Association of the State of Alabama maintains the Physicians' Placement as a service to the medical profession in the state of Alabama. Opportunities for practice in Alabama will be published and will be distributed to physicians making inquiry. Physicians wishing to establish practice are invited to submit a resume to be kept on file with the Association. For further information write to: Mr. Emmett Wyatt, Executive Assistant, Medical Association of the State of Alabama, P. O. Box 1900-C, Montgomery, Alabama 36104, or Telephone 263-6441.*

### LOCATIONS WANTED

*(Physicians interested in locating in Alabama)*

**Orthopedic Surgery:** Age 42; University of Washington 1962; American Board certified; seeking solo or limited partnership, preferably near Gulf Coast, 100,000 plus population. Available December 1976. LW-1.

**PATHOLOGY:** Age 29; Univ. of Michigan 1972; National Board; seeking Assistant or Associate or Institutional. Available December 1976. LW-02.

**Family Practice:** Age 29, University of Kentucky 1972; National Board Certified; American Board Eligible; seeking Single Specialty Group, Partnership, or Multi-specialty Group. Available August 1977. LW 05532.

**Internal Medicine:** Age 34, University of Alabama 1968; National Board Certified; American Board Certified; seeking Solo, Single specialty group, or Multi-specialty group. Available April 1977. LW 02108.

**Obstetrics & Gynecology:** Age 31, University of Tennessee 1970; Will be American Board Eligible 1977; seeking Single specialty group, Partnership, or Multi-specialty group. Available July 1977. LW 05782.

**Ophthalmology:** Age 31; University of Illinois 1971; National Board Certified; American Board Eligible; seeking Partnership, Single specialty group, or Multi-specialty group. Available July 1977. LW-05889.

**Surgery:** Age 33, University of Maryland 1969; National Board Certified; Will be American Board Eligible 1977; seeking Research, Institutional, or Single specialty group. Available July 1977. LW-05587.

**Cardiovascular and Thoracic Surgeon:** Age 35, University trained, experienced in open heart, vascular and pulmonary surgery and now in group practice. Wishes to relocate in private practice. LW-20.

**Surgery/General Practice:** Age 31; University of Florida 1971; Will be American Board Eligible 1976; seeking partnership, single specialty group or multi-specialty group. Available July 1977. LW-01589.

**Orthopedic Surgery:** Age 28; Emory University 1973; American Board Certified; seeking Single Specialty Group. Available July 1977. LW 15.

**Urology:** Age 31, University of Mississippi 1970; American Board Eligible; seeking Single Specialty Group. Available July 1977. LW 17.

**Sophomore Medical Student** — age 22, interested in a town or hospital assisting with medical school costs in return for service there in general/family practice. Available 1980. LW-01.

### PHYSICIANS WANTED

*(Opportunities For Practice)*

**Internist & Family Physician** — Opportunity available for an Internist and a Family Physician in a community 100 miles north of Mobile. Excellent growth potential. Financial assistance available. Abundant outdoor activities (100 miles from gulf). PW-15.

A community with combined population of 10,000 located near Mobile, Alabama is seeking a **general practitioner**. Office space available with living quarters. Several churches and schools. PW-9

**EMERGENCY PHYSICIAN**—60,000 and over, fee for service, 45 hour week, paid basic malpractice, life and convention expenses; modern E.R., Urban advantage. PW-12.

**General Practitioner's** 2 family physicians wanted for general practice in a 64-bed hospital, located between North Alabama towns (in the heart of the Tennessee Valley) with a trade population of 18,000. Office space available. Within 35 miles of large city. Large amount of industrial work in our area. PW-7

**WANTED—General Internist** or Subspecialist with interest in general medicine. University town, population approximately 60,000, to join 4 other internists in a multi-specialty clinic setting; 250-bed expanding general hospital. Specialty coverage, office expansion in progress; attractive living area. PW-11

Opportunity for **General Practitioner** in town of 4,000 population; trade area 30,000 population located in southeast Alabama within short distance of hospitals. One gynecologist and two dentists presently in the town. Agricultural and industrial area. PW-3.

Opportunity for **General Practitioner** in town of 3,000 population; trade area 16,000 population located in southeast Alabama, within short distance of city of 35,000 population where there are two hospitals. Located 85 miles from Gulf Coast beaches. Office space and equipment available. Last physician in town died two years ago. Industrial and farming area. Churches, schools and recreational activities. PW-2.

**GENERAL PRACTITIONER** needed in progressive rural community of about 1,000 people with trade area 20,000, for 36 bed, joint commission approved hospital located in East Central Alabama, within 90 miles of Atlanta, 100 miles of Montgomery and Birmingham, and within 20 minutes of I-20. Guaranteed office space with rent to be worked out. Interested parties and their families are invited to visit with expenses paid. PW-13



**General Practitioner**—Opportunity in central Alabama town of 5,000 population, with a trade area of 30,000 population. Located 30 miles east of Montgomery, Alabama, and 28 miles west of Auburn University. Adjacent to Lake Martin. A new 77-bed hospital with a new Medical Arts Complex adjoining with office space available. Guaranteed income for a General Practitioner or Family Physician. PW-4.

**Full-time Faculty Position:** Board Certified **Family Physician** to teach/practice in new and growing medical school. Teach family practice residents/medical students. Competitive salary/fringe benefits. An affirmative action/equal employment opportunity employer. PW-5.

**GENERAL PRACTITIONERS** wanted to locate in central Alabama town with 17,000 population and a trade area of 35,000 population. Good 68 bed hospital, located near large city with specialty consultants available. Excellent fishing, camping, hunting, golf and schools. Excellent location to raise a family and practice medicine. Healthy

## LETTERS CONTINUED FROM PAGE 12

edialyte does) but they do provide water and glucose and represent a temporizing means of treating diarrhea on an outpatient basis. I think the dangers of using the home-remedy cited by Dr. Sheehy far outweigh the potential advantages.

Sincerely,

David C. Hefelfinger, M.D.

Associate Professor, Chairman,

Department of Pediatrics

College of Community Health Sciences

University, Alabama

## Munchausen Syndrome

I am currently engaged in research on the Munchausen (Hospital Addiction) Syndrome and its variants. I would like to correspond with any other physicians who have had personal contact with such patients. To this end I would appreciate it if you would print this letter in your Correspondence (or Letters) section. All responses to be addressed to:

S. E. Hyler, M.D.

5620 Netherland Avenue

Riverdale, New York, 10471

Thank you,

S. E. Hyler, M.D.

## High School Inquiry

I was informed by one of the nurses at the Lee County Health Department that I could write to you about a poster on what to do if someone is choking.

If you have one available and any others on first aid that you feel we could use, please send them to us.

We encountered a case of choking this year and it was a terrifying experience to say the least.

Thanks for your cooperation.

Respectfully yours,

W. C. Smith, Asst Principal

Loachapoka High School

Loachapoka, Alabama ■

stable economy. On call days only, nights and weekends covered. Office suites available rent free for the first 12 months, also other financial assistance available; including moving expenses, also interested parties can be offered invitations to visit with expenses paid. PW-11.

**General Practitioner** needed in progressive rural community of about 1,000 with trade area of 20,000; 36 bed, joint commission approved hospital. Located in East Central Alabama, within 90 miles of Atlanta, 100 miles of Montgomery and Birmingham, and within 20 minutes of I-20. Guaranteed office space with rent to be worked out. Interested parties and their families are invited to visit with expenses paid. PW-13.2

**General Practitioner**—opportunity in central Alabama town of 5,000, with a trade area of 30,000. Located 30 miles east of Montgomery and 28 miles west of Auburn University. Adjacent to Lake Martin. A new 77-bed hospital with a new Medical Arts Complex adjoining with office space available. Guaranteed income for a General Practitioner or Family Physician. PW-4.

**Wanted**—Family Physicians, Internist, Pediatricians, Ob-Gyn's, Pathologist, & other Physicians. Southwest Alabama town close to Pensacola, Florida and Mobile, Alabama. Excellent growth potential; All recreational opportunities; Stable economy; JCAH Hospital with definite growth plans; 13,000 population; trade area 40,000. PW-5. ■

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OF SOUTHERN CALIFORNIA AWARD**

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## Auxiliary

Mrs. George F. Scofield  
President



"A centipede was happy quite  
Until a frog in fun  
Said 'Pray, which leg comes after which?'  
This raised her mind to such a pitch  
She lay distracted in the ditch  
Considering how to run."

We smile at this anonymous little poem, but is it not a lesson to us as we seek to do the task of the Medical Auxiliary? We are volunteers—yet conscripted volunteers—united in purpose and held together by the needs of medicine and the community.

In the AMA Auxiliary, 90,000 doctor's spouses contribute themselves and their talents to this cause. In the Auxiliary to MASA, 1678 of us serve medicine in Alabama. The Auxiliary's goal is to augment and amplify the efforts of its sponsoring organization—the AMA, MASA and the county medical society.

Each county auxiliary is encouraged to take a close look at its community, to make a survey of existing

## ACTIONS SPEAK LOUDER THAN WORDS

health services, to discover where the health needs are, and then implement programs to meet those needs with the endorsement of their county medical society.

A worthwhile goal for every community is the learning of "cardiopulmonary resuscitation" by a large segment of its population. This heart massage and breathing technique is aimed at saving lives not only of heart attack victims, but of those who have nearly drowned or suffered electric shock. Auxiliaries over the states are already involved in this effort along with the Heart Association and the Red Cross.

Pike County Auxiliary held Save-A-Life Clinics to train volunteers to teach their procedure. Jefferson-Birmingham Auxiliary has given funds raised by a fashion benefit to purchase a teaching mannequin. Madison County is seeking to organize and lead their community in an all-out training effort. All it takes is first to care, then to be informed and then to do. We are helping to shape the events of the future. ■

Pres.—Mrs. George F. Scofield/Pres.-Elect—Mrs. John S. Taylor/First Vice-Pres.—Mrs. Aubrey Terry/NE Vice-Pres.—Mrs. Eugene H. Bradley/SE Vice-Pres.—Mrs. Rufus Lee/SW Vice Pres.—Mrs. William P. Basoon/NW Vice-Pres.—Mrs. Wilfred Yeagan/AMASA Editor—Mrs. William Smith.

## ROSTER SUPPLEMENT CONTINUED FROM PAGE 45

BLEVINS, J. C.,  
Madison ..... 883-1594  
BOOZER, R. M.,  
Morgan ..... 350-9417  
BRYARS, W. C., Jr.,  
Mobile ..... 432-2731  
CAPLASH, V. K.,  
Jefferson ..... 836-8665  
CARNEY, P. T.,  
Sumter ..... 392-5556  
COWART, N. E.,  
Madison ..... 53-6530  
CURTIN, R. A.,  
Calhoun ..... 238-8666  
DAVIS, J. W.,  
Cullman ..... 739-285  
DICK, N. A.,  
Jefferson ..... 780-2037  
DIKE, C. W.,  
Jefferson ..... 925-2465  
ELKUS, R. A.,  
Jefferson ..... 251-2585  
FAIL, B. S.,  
Madison ..... 837-9252  
FITE, L. C.,  
Madison ..... 534-3626

GERMANN, J. R.,  
Madison ..... 881-5730  
GRAHAM, J. M.,  
Madison ..... 772-9681  
HILLMAN, R. A., Jr.,  
Jefferson ..... 879-9183  
ISLEY, R. A.,  
Marshall ..... 582-2007  
KINZER, C. L.,  
Madison ..... 883-8761  
LYRENE, R. K.,  
Marshall ..... 582-2007  
MCKINLEY, D. P.,  
Colbert ..... 381-0030  
MILLER, S. C., Jr.,  
Mobile ..... 473-0311  
MIZE, Shannon  
Madison ..... 883-1797  
NICKERSON, Paul  
Talladega ..... 245-4194  
PACKARD, J. M., Jr.,  
Marshall ..... 582-2007  
PEYTON, E. H., Jr.,  
Madison ..... 837-7505  
PIERSMA, J. D.,  
Madison ..... 852-634

PRIM, H. S., Jr.,  
Houston ..... 793-9511  
RAYFIELD, J. D.,  
Talladega ..... 245-7417  
REDDY, M. R.,  
Calhoun ..... 831-8673  
SALYER, J. R., Jr.,  
Madison ..... 837-6866  
SOX, F. H.,  
Madison ..... 536-5876  
SPENCER, D. V.,  
Lee ..... 749-3486  
STREICHER, R. E.,  
Jefferson ..... 252-6121  
SUMMER, R. O.,  
Colbert ..... 381-2366  
THOMPSON, J. H.,  
Mobile ..... 456-4591  
TRICK, T. L.,  
Jefferson ..... 780-7210  
UFFORD, R. C.,  
Calhoun ..... 236-2074  
WERTELECKI, Wladimir,  
Mobile ..... 476-6305  
WORKMAN, R. B.,  
Morgan ..... 350-2725  
ZORN, G. L., Jr.,  
Jefferson ..... 934-3411

# Digest of actions of the State Board of Censors

*The State Board of Censors at its regular meeting on October 20, 1976, took the following actions:*

- Approved the financial statement for the period ending September 30, 1976, which shows receipts in the amount of \$14,63.91 and disbursements in the amount of \$74,067.10.
- Reaffirmed prior Board's action to authorize the establishment of a countersuit contingency fund in the amount of \$50,000.
- Accepted the Restated Employees Pension Plan and Trust.
- Referred request from the Medical Society of Montgomery County regarding Coding Requirements for Medicaid Claims to the Council on Socio-Economics for specific study and recommendation back to the Subcommittee on Association Affairs.
- Referred letter from the Medical Society of Mobile County concerning Medicare Payments to Podiatrists to the Council on Socio-Economics for study and recommendation back to the Subcommittee.
- Approved two recommendations submitted by the Council on Medical Service which were:

(1) That the President of MASA, or his designee, write to the Office of Rural Health Programs, Department of Health, Education and Welfare, to request that MASA be informed when intent to file grant applications are made.

(2) That the Alabama Development Office be contacted through appropriate channels to establish liaison with MASA and to seek cooperation with regard to health-related project grants that are handled by ADO.

- Concurred in letter from AMA which lists names of physicians submitted for membership on Councils and Committees of the AMA Board of Trustees.
- Deferred for one month action on "MASA's Guide For Releasing Information to the News Media" submitted by Council on Public Affairs.
- Received as information the prepared speech on Heimlich Maneuver submitted by the Department of Communications.
- Received as information a list of county societies which have submitted nominees for District Peer Review vacancies.
- Approved MASA's sponsorship of the Southeast States Socio-Economics Conference to be held November 19-20, 1976, at no cost to the Association as expenses will be incurred by several pharmaceutical companies.
- Recommended that Dr. John B. Rice be authorized to respond to proposed HEW regulations on behalf of the Association. The proposed regulations were:

(1) Criteria for Determination of Reasonable Charge (Revised)

(2) Proposed List of Specific Items and Services

## Digest of actions—State Committee of Public Health

*The State Committee of Public Health, at its meeting on October 20, 1976, took the following actions:*

- Approved amendments to Regulations Governing the Manufacture, Preparation, Display and Service of Foods, Confections and Beverages as they apply to Day Care Centers.
- Approved New Radiopharmaceuticals to be added to the State's routine list which have been approved by the Alabama Medical Radiation Advisory Committee.
- Welcomed Dr. Alfred R. Stumpe who has been named Medical Director of the State Health Planning and Development Agency.
- Appointed members of the former 1122 Project Review Committee as an Interim Subcommittee for the same purpose under PL 93-641 pending implementation of the Advisory Committee requirements under the new law.
- Considered report on unauthorized nursing home construction; authorized legal action against two nursing homes; and approved a recommendation denying reimbursement for capital expenditures under Medicaid for all facilities which did not receive favorable findings and recommendations under Section 1122.
- Set December 15, 1976 at 1:30 P.M. as the time for a joint meeting and public hearing by the State Committee of Public Health and the Emergency Medical Services Advisory Board for proposed rule changes recommended and proposed by the Board.
- Disapproved projects for additions to nursing homes

in Anniston and Forestdale (Birmingham) as not consistent with the existing Alabama Master Hospital Plan.

- Approved EMT-Paramedic Course for Gadsden.
- Received report on effectiveness of Section 112 action for the past three years which indicated approval of approximately 11% of proposed nursing home expansions.
- Appointed Ad Hoc Committee for advice on End Stage Renal Disease activities for Alabama as a part of Regional HEW plan.
- Authorized State Health Planning and Development Agency to public the meeting dates of the SCPII for 1977.
- Was advised of the appointment of Dr. Joyce Gendzwill as Deputy Director of County Health Service Administration effective November, 1976.
- Approved Medicaid amendments relating to PSRO and prohibiting the reassignment of claims, or factoring.
- Approved amendment regarding additional home health care visits per calendar year to 50 without preauthorization, to become effective January 1, 1977.
- Discussed impact of recent State legislation on the cost of Medicaid and was advised that existing services must be cut in order to meet budget restrictions of the present appropriation.
- Approved letter of notification to alleged Medicaid provider abusers.
- The Council on Animal and Environmental Health reported beginning work to draft a new rabies form proposal for implementation at the next printing. ■



In regard to the Digest of Actions submitted by the Council on Socio-Economics, the Board:

(1) Received Resolution of Censure from the Medical Society of Mobile County and voted to invite both, physicians in Mobile and representatives of Blue Cross-Blue Shield to appear before the Board of Censors in order to investigate all the facts before official action is taken.

(2) Concurred in the Council's recommendation to request the Board of Censors to ask Blue Cross-Blue Shield for information and data pertaining to the Medical Assistants' Program in order that the Council might search for an alternate program.

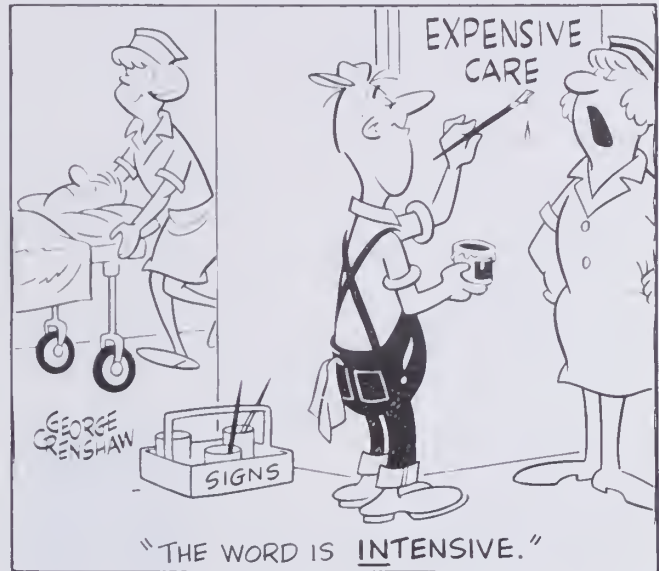
(3) Received as information that the Council received report on the CNA In-Hospital Money Plan.

(4) Amended the Council's recommendation that the Association establish a fund to assist in legal defense against third-party carriers to state that a reasonable amount of publicity be given to the effect that the Association is concerned about the area of conflict between third-party carriers and physicians and that physicians report such to the Association and to some specific individual in order to have an opportunity to evaluate individual cases and to ascertain a need for financial support. Authorized Mr. Mooresmith to draft a news article.

Received as information the 20 percent rate increase

for the Blue Cross-Blue Shield Group Health Insurance Plan for MASA members.

• Referred the American Heart Association's (Alabama Affiliate) request for possible joint sponsorship of programs in clinical cardiology for physicians to the Council on Medical Education for study and recommendation. ■



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Dorothy R. Mooney, Associate Director

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ACCREDITED BY THE J. C. A. H.



# Continuing Medical Education

## GASTROENTEROLOGY

Directions: Each of the questions or incomplete statements below is followed by four or five suggested answers or completions. Select the **ONE** that is **BEST** in each case

1. A 73-year-old man, previously healthy, develops weakness, diarrhea and weight loss in spite of a good appetite. Physical examination shows only pallor and evidence of weight loss. Laboratory studies indicate that he has a megaloblastic, macrocytic anemia; steatorrhea; and a decreased absorption of vitamin B-12 (by Schilling test), even with added intrinsic factor. Roentgenograms of the gastrointestinal tract show no significant abnormalities except for several diverticula of the sigmoid colon and the proximal jejunum. Which of the following diagnostic studies is most likely to clarify the etiology of the patient's illness?
  - A. Reticulocyte counts after administration of physiologic doses of vitamin B-12
  - B. Trial of a gluten-free diet
  - C. Peroral mucosal biopsy of the small intestine
  - D. Reticulocyte counts after administration of folic acid
  - E. Repeat Schilling test after a course of tetracycline therapy
2. Which of the following tests could best be used to EXCLUDE a diagnosis of untreated celiac-sprue disease (nontropical sprue)?
  - A. Sudan stain and microscopic examination of a stool specimen
  - B. D-xylose tolerance test
  - C. Serum carotene determination
  - D. Chemical determination of fat in a 72-hr pooled stool specimen
  - E. Peroral mucosal biopsy of the small intestine
3. With regard to gallstones, each of the following statements is true EXCEPT:
  - A. In the hepatic bile of normal humans, cholesterol is solubilized by lecithin and bile salts. The ratio of these three components is critical in preventing the precipitation of cholesterol, and, therefore, the formation of gallstones
  - B. In patients with cholesterol gallstones, bile from the gallbladder and common duct is saturated with respect to its capacity for solubilizing cholesterol
  - C. In animal models wherein gallstones may be experimentally induced, dietary manipulations may strikingly influence the chemical composition of bile and thereby gallstone formation
  - D. In certain human ethnic groups (e.g., American Pima Indians) the incidence of gallstones is strikingly increased. Dietary, rather than genetic, causes have been shown to be responsible
  - E. Enzymes of bacterial and tissue origin within the gallbladder may alter the chemical structure of bile salts and phospholipids. This occurrence reduces the ability of the bile to solubilize cholesterol and bilirubin, and may cause gallstone formation.
4. Each of the following statements regarding pat with intestinal lymphangiectasia is correct EXCEPT:
  - A. Significant reductions of serum immunoglobulin levels often occur
  - B. Acute infections are particularly common
  - C. Lymphocytopenia and defective delayed hypersensitivity are common
  - D. Steatorrhea is often present
  - E. Hypoalbuminemia is caused by leakage of albumin into the intestine
5. Each of the following statements pertaining to villous adenomas of the colon is correct EXCEPT:
  - A. They are most commonly found in the rectosigmoid region of the colon
  - B. They may exude sufficient water and electrolytes to cause watery diarrhea with dehydration
  - C. They result in invasive carcinoma in more than 25 per cent of patients
  - D. They are generally benign, causing only excessive mucus in stools
  - E. Patients with these lesions may develop marked hypokalemia
6. Isolated intestinal lactase deficiency is usually associated with each of the following EXCEPT:
  - A. an increase in blood glucose of less than 100 mg/100 ml after ingestion of 100 gm of lactose
  - B. severe steatorrhea
  - C. normal histology of the jejunal mucosa
  - D. increased incidence in Negroes
  - E. normal absorption of galactose
7. A 26-year-old medical student is brought to the emergency room at 2:00 a.m. by two fraternal brothers. He is pale and sweating; his pulse rate is 140/min and his blood pressure is 96/60 mm Hg. One hour previously, after excessive drinking at a party, he experienced severe emesis followed by acute lower substernal pain. Approximately 30 minutes later he became nauseated again and vomited an estimated 800 to 1200 ml of bloody material including blood clots. This clinical picture is most compatible with:
  - A. acute esophagitis
  - B. acute gastritis
  - C. a combination of acute esophagitis and gastritis
  - D. rupture of the upper esophagus
  - E. an esophageal mucosal tear at the esophagogastric junction (Mallory-Weiss syndrome)
8. A 48-year-old man with cirrhosis of the liver due to alcohol has esophageal varices that have never bled. Prophylactic portacaval shunt is being considered. Which of the following statements concerning shunting is applicable?
  - A. No controlled study of this question has ever been done
  - B. The patient is too old to tolerate the operation
  - C. Controlled studies have shown that suc



patients who have undergone shunts have a survival rate no greater than those who have not

- D. If the patient has all of the clinical and laboratory criteria for a "good risk" patient, he should have a shunt
- E. An hepatic wedge pressure greater than 250 mm H<sub>2</sub>O would be strong evidence that he should have a shunt

Manifestations of hepatoma may include each of the following EXCEPT

- A. polychthemia
- B. hypocholesterolemia
- C. obstruction of the inferior vena cava
- D. hypoglycemia
- E. portal vein thrombosis

The D-xylose tolerance test is frequently used in the study of malabsorption syndromes. Each of the following statements concerning this test is correct EXCEPT:

- A. When administered to a patient with severe celiac-sprue disease (nontropical sprue), a 25-gm test dose will cause profuse watery diarrhea; therefore, a 5-gm test dose would be preferable
- B. Because D-xylose is actively absorbed best in the upper small intestine, results of this test will be abnormal if there is a diffuse mucosal disorder in this region
- C. Results of the test are usually abnormal in patients with pancreatic exocrine insufficiency
- D. Pyloric obstruction may cause abnormal test results
- E. Good glomerular function is essential for interpretation of data obtained from this test

#### CORRECT ANSWERS

1. E	4. B	7. E	10. C
2. E	5. D	8. C	
3. D	6. B	9. B	

## CME CALENDAR

### DECEMBER

December 2-4, First SE Conference on Alcohol and Drug Abuse, Marriott Hotel, Atlanta. 20 hrs. prescribed credit - A.F.P.

December 4-7, AMA's 30th Clinical Convention, Sheraton Hotel, Philadelphia, Pa.

December 17-18, "Gastrointestinal Workshop For The Practicing Physician," Univ. of Kentucky Medical Center, Lexington, Ky.

### JANUARY

January 20-22, 7th Annual Postgraduate Course in Gastroenterology, Ochsner Medical Foundation, New Orleans.

January 30-February 4, 12th Annual Scientific Assembly, American Society of Contemporary Medicine and Surgery, Diplomat Hotel, Hollywood, Fla.

January 31-February 1, First International Glaucoma Congress, Diplomat Hotel, Hollywood, Fla.

January 28-30, Southern Radiological Conference Annual Meeting, Grand Hotel, Point Clear, Alabama. For further information contact Dr. J. W. Maxwell, P. O. Box 214, Mobile, Alabama, 36601.

January 30-February 5, 12th Annual Scientific Assembly, American Society of Contemporary Ophthalmology, Diplomat Hotel, Hollywood, Florida. Approved for 42 hours Category 1 credit, A.M.A. and Certificate of Advanced Studies in Ophthalmology. Contact: Dr. John Bellows, 30 N. Michigan Ave., Chicago, Ill. 60602.

### FEBRUARY

February 3-5, "Vascular Surgery—Updated," Ochsner Medical Foundation, New Orleans.

February 26-27, Annual Anesthesiology Review Course, "Issues and Answers In Anesthetic Practice—Anesthesia and the Nervous System," New Basic Science Bldg., Univ. of Alabama, Birmingham. Appropriate CME credit applied for. Contact: M. Clifford Holcomb, M.D., Assoc. Dir., Graduate Training Program, Dept. of Anes., UAB, 5294.

### MARCH

March 2-4, 30th Annual Symposium on Fundamental Cancer Research, Shamrock Hilton, Houston.

## DR. GENDZWILL NAMED TO STATE HEALTH POST



Dr. Joyce Gendzwill has been named deputy director of the County Health Services Administration of the Alabama Department of Public Health according to Dr. Ira L. Myers, State Health Officer. Dr. Gendzwill will travel and work in Alabama counties where there is no health officer at present.

For the past 17 years, Dr. Gendzwill has been medical director of the Dickinson-Iron District Health Department in Stambaugh, Mich., and she has both an M.D. degree and a Master of Public Health degree from the University of Michigan, Ann Arbor, Mich. Dr. Gendzwill, the mother of three college age children, begins her new duties Nov. 3. ■

## LON CONNER NAMED NEW MASA EXECUTIVE DIRECTOR

S. Lon Conner, formerly with the Alabama Development Office as Economic Development Planning Coordinator, began his new duties as MASA's Executive Director November 15, 1976. His hiring followed a four-month intensive search by a special committee of the Board of Censors to find a new executive director.

Conner was affiliated with the Alabama Development Office for approximately two years. Prior to this, he was in private business in Montgomery. He is a native of Montgomery and a graduate of Montgomery's Sidney Lanier High School.

The new executive director has a B.S. degree in Business Administration and a Master's degree in Public Administration from Auburn University. His military stint was with the U.S. Army.

He and his wife have three daughters and they are members of the Dalraida Church of Christ in Montgomery. ■

# Bureau of Preventable Diseases

FREDERICK S. WOLF, M.D., DIRECTOR

## MEASLES

"At its meeting on Sunday, October 17, 1976, the Committee on Infectious Diseases of the American Academy of Pediatrics reviewed the results of four recent studies indicating that the optimum age for measles immunization is 15 months of age, rather than 12 months of age. The antibody response at 12 months ranged between 80-85 percent; it was more than 95 percent if measles vaccine was given after 13 or 14 months of age."

Source: American Academy of Pediatrics News Release, October 21, 1976.

## RABIES

"Human Rabies in Manchester, England

"On June 11, 1976, a 53-year-old man from Bangladesh died 48 hours after he was admitted to a hospital in Manchester with a history of dysuria and micturition. He was living in England and had worked in a restaurant. He was a known diabetic and was being treated with chlorpropamide.

"On admission he was anxious and complained of pain in his penis and urethra. His temperature was 37.5 degrees C and his pulse rate 80 per minute.

"During the night after admission he would not drink the prescribed liquids because he had difficulty in swallowing. This was brought to the attention of the senior house officer who found no abnormality of the mouth or throat. Because the patient was dehydrated, saline infusion was begun.

"The next morning the patient began to exhibit strange behavior. He was described as being alternately aggressive and affectionate. On several occasions he refused to drink and pushed away water offered on him. On 3 occasions, however, he did drink water, with bizarre behavior (such as exhibiting aerophobia, and hypersensitivity to light, sound, and touch) while doing so.

"At about 3:00 PM on June 10 he was found on the floor by his bed after a loud crash was heard. He was then seen by one of the physicians on duty who described him as grinding his teeth and salivating with his body arched backwards and his arms held out. At this point his behavior was considered hysterical. Again when offered water, he refused to drink. Because he was in such an excited state, he was given large doses of diazepam over a period of about one hour with no immediate effect.

"On examination he was found to have lower abdominal tenderness and his temperature was 37.5 degrees C. He was referred to the general surgeon and the decision made to do a laparotomy.

"In the 2 hours just prior to surgery, the patient was calm and cooperative, possibly the effect of diazepam.

Laparotomy was done at 9:00 PM. The bladder was distended and the appendix slightly inflamed.

"At about 11:30 PM the patient began to shout and become uncontrollable, pulling the IV needle out and knocking over the stand. Despite repeated doses of sedatives, he remained violent, and about 3:30 AM he leaped from his bed. His pupils were dilated and he was described as having a terrible aversion to water. Attempts to give him sips of water made him go berserk. At this stage, his friends were sent for and asked if there was a history of dog bite. Through an interpreter they replied that the patient had returned from Bangladesh in August 1975 and had mentioned to someone he had been bitten by a dog, but it was not clear whether it was the patient himself or someone else. Subsequently, it was established that the patient had been in Bangladesh for 18 months before returning to England in 1975.

"At 8:15 AM, June, 11, the patient had a cardiac arrest, and attempts to resuscitate him failed. Post mortem examination revealed that the patient had inhaled vomitus and saliva. There were multiple lacerations on the right shin and near the knee; they were compatible with a bite, but it was impossible to say how old they were.

"The brain showed no signs of encephalitis. The diagnosis of rabies was confirmed when rabies virus was isolated from the brain.

"Six persons who had close contact with the patient were started on a course of antirabies vaccination beginning with duck embryo vaccine and later changing to human diploid vaccine.

"Source: Communicable Disease Report, July 9, 1976, compiled by the Epidemiological Research Laboratory from reports received from Public Health Laboratory Service and hospital laboratories in England, Wales, and Ireland.

"*Editorial Note:* This case is particularly interesting in that it provides good documentation of an incubation period of almost one year. It is highly unlikely that exposure could have occurred in the 11 months prior to onset of illness during which time the patient did not leave Great Britain, a country recognized as rabies free. Although not positively demonstrated, it seems certain that the exposure occurred during the victim's visit to Bangladesh in August 1975. Dog rabies is enzootic in Bangladesh. Incubation periods in excess of one year have been reported, but usually the possibility of unrecognized exposure cannot be so reliably excluded in this case. The usual incubation period is 20-60 days.

CDC *Veterinary Public Health Notes*, September 1976, U. S. Department of Health, Education, and Welfare, Public Health Service, Center for Disease Control, Atlanta, Georgia 3033.

## MALARIA

"The resurgence of endemic malaria throughout the world has been recognized in recent years, perhaps coincident with the shift in policy by the World Health Organization from eradication of malaria as an immediate goal to control of malaria as the short-term and global eradication as the long-term goal. Despite progress in reducing the threat of malaria in many parts of the



world, conditions remain ripe for malaria transmission in the United States.

International travel continues at a high level. While the number of cases of malaria in military personnel returning to the United States had declines, the number of imported cases in civilians, especially in tourists, is on the increase. Malaria was endemic in the United States until the mid-1950s, and large numbers of anopheline mosquitoes, potential vectors of the disease, continue to be present in this country. Thus the influx of parasitic individuals persistently raises the risk of new outbreaks of introduced malaria.

Since the population of the United States is neither immunized nor protected, the control of imported malaria remains a high priority. A vigorous malaria surveillance program is and will continue to be the best protection against reestablishment of malaria in the United States."

Source: Shaw PK, Brodsky RE, Schultz MG: Malaria surveillance in the United States, 1974. J. Infect. Dis. 133: 95-101, 1976.

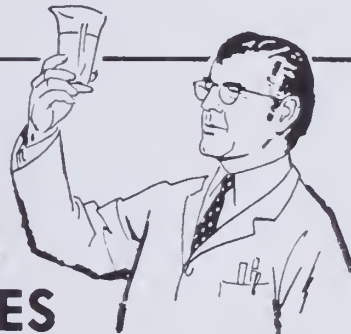
We should not only recognize the potential for malaria in Alabama but must also realize that Alabama is listed as a Yellow Fever receptive area—the mosquito vector is present in much of Alabama.

DARKFIELD MICROSCOPY is available to physicians at no cost by calling 832-3205 collect at any time. A technician and equipment will be dispatched to your office.

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# MEDICAL HOTLINE



**Alabama PSRO**, coordinated and monitored by Alabama Medical Review, Inc., appears to be the pacesetter for all PSRO activity across the Nation. Physician review committees have now been created at Lloyd Noland, St. Vincent's, and University Hospitals. AMR is aiming toward an additional 55 hospitals in the state to handle review activity in the coming year. Many states, particularly out West, are still without a PSRO program, most bogged down in court litigation.

**Seems** like Senator Frank Moss, D-Utah, had political shortcomings which his Medical Investigation Subcommittee findings could not erase. He was defeated on November 2 in his bid for re-election.

**Medicaid** probings continue in Alabama by members of a legislative subcommittee. The biggest news to come from their discussions, though no official action has been taken, involves a computerized program to assist in "weeding out" Medicaid abusers and program over-utilization. Recommendation comes from HEW bureaucrats who are pushing the concept in other states.

**The Medical Association of Georgia** has revealed that a number of rural physicians, fed up with the Medicaid red tape, have dropped out of the program. Georgia also has a legislative panel studying its Medicaid program and MAG officials reported to the panel that the physicians were just disgusted and that their complaint was more broadly based than a mere dispute over late payments.

**Medical student shortage?** America's 116 medical schools have a total of 57,236 medical students currently enrolled, including 15,349 first-year students. This represents a 29 per cent increase in five years!

**Dr. Orizaba Emfinger** received editorial support by an Alabama daily newspaper following his speech to a Montgomery civic club about the possible cost this Nation would incur with a national health insurance program. Though the elections are over, and NHI was an election issue, very few major newspapers have stepped forward to endorse the concept of a national health insurance plan. It will be interesting to see if the Fourth Estate continues to express its feelings on the matter by its silence.

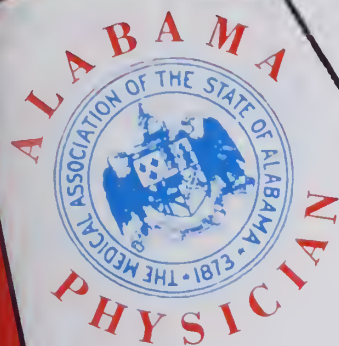
**While** on the subject, please note the cost figures put forth by an actuarial firm on each NHI plan submitted to Congress. They are: the Long-Ribicoff measure—\$9.8 billion; plan submitted by health insurance companies—\$11 billion; CHIP—\$11.3 billion; AMA plan—\$20.3 billion; Labor-Kennedy plan—\$24.8 billion; and the AHA plan—\$25.1 billion.



# JOURNAL

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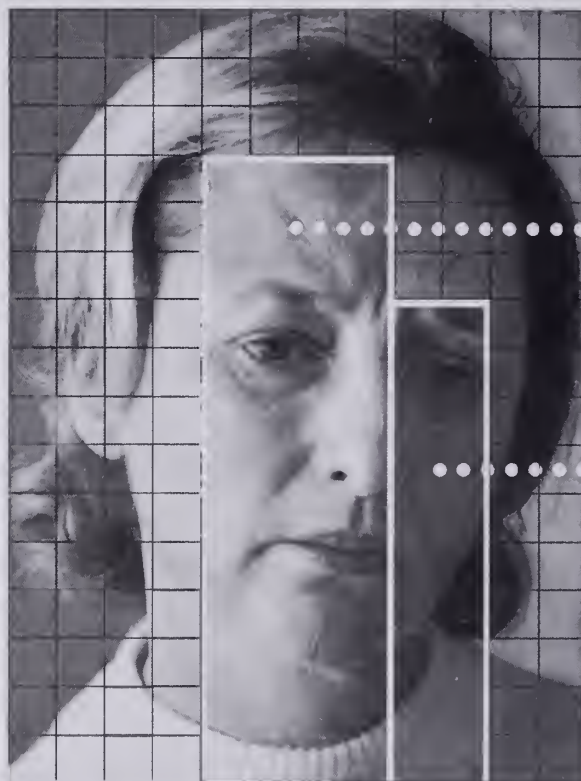
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● Predominant  
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symptoms

**Before prescribing, please consult complete product information, a summary of which follows:**

**Indications:** Tension and anxiety states; somatic complaints which are concomitants of emotional factors; psychoneurotic states manifested by tension, anxiety, apprehension, fatigue, depressive symptoms or agitation; symptomatic relief of acute agitation, tremor, delirium tremens and hallucinosis due to acute alcohol withdrawal; adjunctively in skeletal muscle spasm due to reflex spasm to local pathol-

ogy; spasticity caused by upper motor neuron disorders; athetosis; stiff-man syndrome; convulsive disorders (not for sole therapy).

**Contraindicated:** Known hypersensitivity to the drug. Children under 6 months of age. Acute narrow angle glaucoma; may be used in patients with open angle glaucoma who are receiving appropriate therapy.

**Warnings:** Not of value in psychotic patients. Caution against hazardous occupations requiring complete mental alertness. When used adjunctively in convulsive disorders, possibility of increase in frequency

and/or severity of grand mal seizures may require increased dosage of standard anticonvulsant medication; abrupt withdrawal may be associated with temporary increase in frequency and/or severity of seizures. Advise against simultaneous ingestion of alcohol and other CNS depressants. Withdrawal symptoms (similar to those with barbiturates and alcohol) have occurred following abrupt discontinuance (convulsions, tremor, abdominal and muscle cramps, vomiting and sweating). Keep addiction-prone individuals under careful



# respond to one

According to her major symptoms, she is a psychoneurotic patient with severe anxiety. But according to the description she gives of her feelings, part of the problem may sound like depression. This is because her problem, although primarily one of excessive anxiety, is often accompanied by depressive symptomatology. Valium (diazepam) can provide relief for both—as the excessive anxiety is relieved, the depressive symptoms associated with it are also often relieved.

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in the patient within a few days rather than in a week or two, although it may take longer in some patients. In addition, Valium (diazepam) is generally well tolerated; as with most CNS-acting agents, caution patients against hazardous occupations requiring complete mental alertness.

Also, because the psychoneurotic patient's symptoms are often intensified at bedtime, Valium can offer an additional benefit. An *h.s.* dose added to the *b.i.d.* or *t.i.d.* treatment regimen can relieve the excessive anxiety and associated depressive symptoms and thus encourage a more restful night's sleep.



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in psychoneurotic  
anxiety states  
with associated  
depressive symptoms

surveillance because of their predisposition to habituation and dependence.

**Usage in Pregnancy:** Use of minor tranquilizers during first trimester should almost always be avoided because of increased risk of congenital malformations as suggested in several studies. Consider possibility of pregnancy when instituting therapy; advise patients to discuss therapy if they intend to or do become pregnant.

**Precautions:** If combined with other psychotropics or anticonvulsants, consider carefully pharmacology of agents em-

ployed; drugs such as phenothiazines, narcotics, barbiturates, MAO inhibitors and other antidepressants may potentiate its action. Usual precautions indicated in patients severely depressed, or with latent depression, or with suicidal tendencies. Observe usual precautions in impaired renal or hepatic function. Limit dosage to smallest effective amount in elderly and debilitated to preclude ataxia or oversedation.

**Side Effects:** Drowsiness, confusion, diplopia, hypotension, changes in libido, nausea, fatigue, depression, dysarthria, jaundice,

skin rash, ataxia, constipation, headache, incontinence, changes in salivation, slurred speech, tremor, vertigo, urinary retention, blurred vision. Paradoxical reactions such as acute hyperexcited states, anxiety, hallucinations, increased muscle spasticity, insomnia, rage, sleep disturbances, stimulation have been reported; should these occur, discontinue drug. Isolated reports of neutropenia, jaundice; periodic blood counts and liver function tests advisable during long-term therapy.



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# 19 VIEWS



IT WON'T BE long now until district censors will announce meeting times and places for their district caucus meetings after the turn of the New Year. As you recall, MASA's new Constitution and Bylaws—adopted in 1975—requires each congressional district censor to call a meeting of all counsellors and delegates in his district at least 60 days prior to each annual meeting.

Purposes of the caucus meetings include nominations to fill vacancies in the College of Counsellors and other offices, consideration of reports, and filing of recommendations and resolutions on subjects to be considered by the reference committees in April.

Caucus meetings held the first of this year, though a little shakey at first in getting started, eventually proved to be the success envisioned by those who structured the new Constitution, *The Alabama M.D.*, and the *Journal* will carry more information about these forthcoming meetings.

\*\*\*

THE SCIENTIFIC portion of MASA's 116th Annual Session will have a new face. Dr. Wright and MASA's Council on Education are seeking to make this portion of the annual meeting not only an attractive draw for more physicians, but also a program with timely subject matters.

The session will be broken into "specialty sections." Such an arrangement seems to be catching on in other states since physicians would be able to attend those sections which meet the needs of their practice and specialty interests.

At its October meeting, the Council appointed section chairmen for the Friday afternoon session: Dr. Martin Putnoi—Internal Medicine; Dr. Robert J. McLaughlin—Pediatrics; and Dr. Robert L. Dorrough—Surgery. Dr. William Lazenby and Dr. Margaret Klapper will be responsible for planning a general session for Friday morning.

## ABOUT THE COVER

Some months ago, did someone say that it could not be done? Well, it is being done. The Mutual Assurance Society of Alabama is alive and well and headquartered in Birmingham. A feature on pages 14 and 15 of this issue provides more detailed information about the new company.

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Each gram of Anusol-HC Cream contains hydrocortisone acetate, 5.0 mg, bismuth subgallate, 22.5 mg; bismuth resorcin compound, 17.5 mg, benzyl benzoate, 12.0 mg, Peruvian Balsam, 18.0 mg, zinc oxide, 110.0 mg, also contains the following inactive ingredients: propylene glycol, bismuth subiodide, propylparaben, methylparaben, polysorbate 60, sorbitan monostearate in a water-miscible base of mineral oil and glyceryl monostearate. Non-staining

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
**Contraindications:** History of sensitivity to any component. Topical corticosteroids should not be employed in tuberculous, fungal and most viral lesions of the skin (including herpes, vaccinia and varicella).

**Warnings:** The safe use of topical steroids during pregnancy has not been fully established. Therefore, during pregnancy they should not be used unnecessarily on extended areas, in large amounts or for prolonged periods of time.

**Precautions:** Symptomatic relief should not delay definitive diagnoses or treatment. When there is bacterial skin infection, topical corticosteroids should be used only with appropriate concomitant antimicrobial therapy. Prolonged or excessive use of corticosteroids might produce systemic effects.

**Dosage and Administration:** Anusol-HC Suppositories. Remove foil wrapper and insert into the anus. One suppository in the morning and one at bedtime, for 3 to 6 days or until inflammation subsides. Then maintain patient comfort with regular Anusol.

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## Anusol-HC<sup>®</sup>

suppositories and cream  
with hydrocortisone acetate. Rx only

**pain and burning  
respond in minutes**

• without belladonna alkaloids • without CNS stimulants



Artist's interpretation in bas-relief of  
external hemorrhoids, postoperative anorectal  
wounds and anal dermatitis.

# Famous Fighters



JOHN L. SULLIVAN  
Bare-knuckles heavyweight champion  
1882-1892

## NEOSPORIN® Ointment (polymyxin B-bacitracin-neomycin) is a famous fighter, too.

Provides overlapping, broad-spectrum antibacterial action to help combat infection caused by common susceptible pathogens (including staph and strep).

Each gram contains: Aerosporin® brand Polymyxin B Sulfate 5,000 units; zinc bacitracin 400 units; neomycin sulfate 5 mg (equivalent to 3.5 mg neomycin base); special white petrolatum qs in tubes of 1 oz and 1/2 oz and 1/32 oz (approx.) foil packets.

**INDICATIONS:** Therapeutically (as an adjunct to systemic therapy when indicated) for topical infections, primary or secondary, due to susceptible organisms, as in: • infected burns, skin grafts, surgical incisions, otitis externa • primary pyodermas (impetigo, ecthyma, sycosis vulgaris, paronychia) • secondarily infected dermatoses (eczema, herpes, and seborrheic dermatitis) • traumatic lesions, inflamed or suppurating as a result of bacterial infection.

**Prophylactically**, the ointment may be used to prevent bacterial contamination in burns, skin grafts, incisions, and other clean lesions. For abrasions, minor cuts and wounds accidentally incurred, its use may prevent the development of infection and permit wound healing. **CONTRAINDICATIONS:** Not for use in the eyes or external ear canal if the eardrum is perforated. This product is contraindicated in those individuals who have shown hypersensitivity to any of the components.

**WARNING:** Because of the potential hazard of nephrotoxicity and ototoxicity due to



neomycin, care should be exercised when using this product in treating extensive burns, trophic ulceration and other extensive conditions where absorption of neomycin is possible. In burns where more than 20 percent of the body surface is affected, especially if the patient has impaired renal function or is receiving other aminoglycoside antibiotics concurrently, not more than one application a day is recommended. **PRECAUTIONS:** As with other antibacterial preparations, prolonged use may result in overgrowth of nonsusceptible organisms, including fungi. Appropriate measures should be taken if this occurs. **ADVERSE REACTIONS:** Neomycin is a not uncommon cutaneous sensitizer. Articles in the current literature indicate an increase in the prevalence of persons allergic to neomycin. Ototoxicity and nephrotoxicity have been reported (see Warning section).

Complete literature available on request from Professional Services Dept. PML.



Burroughs Wellcome Co.  
Research Triangle Park  
North Carolina 27709



**Key To Insurance  
Company Success:  
Physician Participation**



**WILLIAM T. WRIGHT, M.D.**

The Mutual Assurance Society of Alabama now is a reality. In looking back over the events of the last 18 months, I cannot help but remember my first reaction which was, "I surely do not want us to go into the insurance business." But, as time passed and more and more commercial companies told us "no", it became evident that it was necessary for the doctors of Alabama to be in the insurance business or face medicine uninsured or, possibly, some of our lower risk physicians could be covered temporarily with threat of commercial cancellation at any time.

Literally thousands of man hours have been spent in carefully planning this Company. The Board of Censors has spearheaded the work in this endeavor. As soon as this Company is in business, the members of the Board of Censors plan to begin phasing out of the operation of the Mutual Assurance Society of Alabama by being replaced with District representatives from our membership over the State. The insurance company must function independent of MASA. We, as a Board of Censors, do not believe in over-centralization of authority, but felt compelled to take a leadership role in the formation of this Company.

One of the biggest keys in the degree of success for this Company will be the number of physicians who recognize the importance of early participation in this Company. If only 1,000 physicians participate, the limits of coverage offered will be \$100,000/\$300,000; if 2,000 participate the limits will be \$200,000/\$600,000; and, if 3,000 participate, the coverage will be \$1,000,000/\$1,000,000, with very little difference in premium dollars spent by participating physicians. The actual rate structure for losses will be very near the new rates by our present commercial carrier plus the amortization of the money which we must borrow for the initial capitalization of the Company. The State Insurance Commissioner required \$10.00 of unincumbered capital for each \$1.00 of liability coverage offered for any one policy, which means if we offer a \$1,000,000/\$1,000,000 maximum coverage, we must have \$10,000,000 unincumbered capital reserve to start with.

I would like to commend Leon C. Hamrick, M.D., Chairman of the Board of Censors; C. A. Lightcap, M.D., Chairman of the Board for the new insurance company; and Mr. E. Dow Walker, Executive Director of the new insurance company, for their work so far on our behalf.

If you would like more details or need some of us to come to your county society meeting to further explain the new insurance program, please call toll free 1-800-392-5668.

*Bill*



# Editorial Comments

Journal of the Medical Association of the State of Alabama/19 So. Jackson St./Montgomery, Ala. 36101

## Role Of The County Medical Society



**THE COUNTY** medical society is the basic element of organized medicine, in my opinion.

Its officers, trustees, censors, committee members, staff and auxiliary help the profession to meet its collective responsibilities to the public while promoting a public understanding and appreciation for medicine's contribution to the public welfare.

The county medical society provides direction for the state association, which, in turn, through its delegates to the AMA House of Delegates formulates national policy.

As an executive director of a metropolitan county medical society, I find that an effective society must be responsive to its membership.

In addition to providing services to its members, its greatest challenge is its obligation to represent the profession both to the general public and to other organizations, political and otherwise, in our community.

In order to accomplish the necessary, we must be able to speak for our members in an effective way. The local medical society must provide this leadership by encouraging physicians to participate in all health related activities.

A strong medical society steadily increases its quality and quantity of services to its membership, strengthens its relationship with neighboring medical societies and other medical groups, strengthens its own position in the community by taking a more active role in community affairs, and provides health care expertise for community projects and planning while building a capacity to represent its members through collective bargaining when necessary. Finally, it works through and supports the state association in all its endeavors.

How do we accomplish these ends? We put the best people we can find on our committees, study in depth the needs and desires of our members, involve our new members early, solicit the aid, advice and expertise of our older members, and seek the aid and support of our able medical auxiliary.

We do it through public service projects that promote the local medical society. We do it with an effective grievance committee that resolves all complaints, and we do it by working to control the high cost of medical care.

The future, as the past and present, holds fair and foul weather for the medical profession. Right now the

**By Wallie Carpenter, Executive Director,  
Jefferson County Medical Society**

barometer predicts more storms than sunshine. Without a strong, prepared and united organizational shelter, the independent physician just may be washed right down the tube.

Quite obvious, the local medical society, the state association, and the AMA for that matter cannot represent all doctors all of the time. There is just too much difference of thought and opinion intensified by strong individualism most physicians share.

If a medical society is to be a viable, functioning organization, its members must find some common ground, some common cause. There must be a set of principles, a defined course of action with which the majority is in agreement before the local society can proceed at all.

Remember a county medical society does not exist for its own sake. It is an instrument through which its members can obtain ends that they could not achieve alone. ■

## Guilt By Innuendo

HEW's release of the names of over 2,500 Medical providers who received \$100,000 or more last year has been termed by AMA's Executive Vice President, James H. Sammons, M.D., as an attempt at "guilt by innuendo." Dr. Sammons deplores HEW's issuance of the list by stating that its release "simply makes the tough practice tougher for the thousands of dedicated, honest ghetto physicians. If HEW wants to drive medical care out of the ghetto completely, it has certainly hit upon a highly effective method."

The list released by HEW includes 995 physicians, the remainder of which includes the names of dentists, pharmacists, laboratories, and nursing home operators.

Dr. Sammons could not be more correct. The list is more than a simple listing for "public record" of Medical providers receiving more than \$100,000 per year; "implies" that anyone receiving *over* this amount is a cheat. Physicians on the list are held open to public ridicule by implication, without regard to the resulting name or practice defamation.

The listings do not include any information about cost of services, hours of work and dedication, and professional skill.



required to meet the needs of people in areas where other physicians will not serve.

Items such as quality of care and use of expensive, life-saving equipment are, of course, deleted. The list is a glaring attempt, intentional or unintentional, to hold these providers out as rip-off artists, thieves down to the last man. Publication of lists of this nature is in essence a declaration of criminality by implication and innuendo and the practice of medicine is smeared from top to bottom, leaving little, if any, recourse.

It is well-known that there are some providers who are treating themselves and over-indulging themselves to expensive, personal luxuries at the expense of the taxpayer. Many of these may be on the list.

Listing of Medicaid providers in this "\$100,000 + category" on a list for the mere sake of having such a list is not responsible reporting, whether it be by government or by the Fourth Estate. It is the responsibility of those publishing such a list to investigate thoroughly who on the list is a crook and make sure these names are clearly indicated.

It would not at all be a surprise in the 95th Congress to see the emergence of legislation directing severe jail terms for providers found guilty in bilking estimated billions of dollars in Medicaid fraud. It might come to that. But until that time, let's have an accurate reporting and interpretation of the facts and remove those dangerous implications that would be otherwise unfounded. ■

## Barefoot Happiness

Doesn't seem like so long ago when this writer cherished those months of the year when shoes were kicked aside and going barefoot was a most pleasant, anticipated indulgence. Now, with a respectable, white-collar job to hold and a mature impression to make to one's peers, going barefoot has been relegated to those few moments at home in the evening after work or lazy Saturday afternoons in the backyard.

A Louisiana surgeon recently acquired national news coverage by going on record prescribing that everyone should go barefoot for at least part of each day for healthier feet and a happier state of mind. His prescriptions were given at the most recent Clinical Congress of the American College of Surgeons.

He reported that he personally gets "tremendous mental refreshment" from walking around barefoot. Many hard-soled individuals would agree with that statement. It is, in a way, refreshing to kick off the shoes after getting home from work, and "revitalizes" foot and leg muscles, to say nothing of the "cooling" sensation derived therefrom.

Such pronouncements do make one stop and think that the good doctor might have a real point in this day and age when our society still searches in an almost "scatter-gun style" for ways its citizens might achieve a "happier state of mind and being." According to this physician, the answer may lie right at our feet. Paying more attention to the needs of our "aching feet" may lessen the time spent searching with wanderlust for a happier state of mind. ■

## FP Nutrition Conference Announced

Postgraduate nutrition conference entitled, "Update on Nutrition for the Family Physician," sponsored by the Continuing Education Department of the School of Primary Medical Care, The University of Alabama in Huntsville, will be held March 29-30, 1977. The conference is designed to provide current information on nutrition topics and common nutritional problems the physician may encounter frequently in his practice.

The course has Category I accreditation toward the AMA Physicians' Recognition Award, AAFP, ADA and Nurses accreditation. Physicians and health care professionals are eligible to attend and may obtain information from: Mrs. Carol Malone, Ambulatory Care Center, 201 Governors Drive, SW, Huntsville, Alabama 35801. ■

## Employment Increase Projected In Health Field

The Alabama Department of Industrial Relations has recently completed and mailed an interesting research manual entitled "Alabama's Occupational Trends For 1985" in which significant employment trends are projected in all health career categories except optometry.

The breakdown is as follows: (percent change 1974-1985) physicians-75.8%; therapists-73.5%; dentists-60.8%; registered nurses-36.4%; veterinarians-29.2%; podiatrists-25.0%; chiropractors-23.1%; dietitians-23.0%; pharmacists-15.2%; optometrists-6.7%. ■

## Malpractice Insurance Costs Factor In Increase

Part of the increase in physicians' fees is the result of the rising cost of professional liability insurance. In 1975, according to an AMA survey and data obtained from federal agencies, patients paid an estimated \$1.24 for malpractice insurance—about 8.1% of the total cost of the visit—each time they saw a doctor.

In 1973, patients paid only 30 cents per visit for malpractice insurance, or about 2.4% of the full amount of the visit. Physicians paid an average of \$1,905 for malpractice insurance in 1973. The average payment per physician in 1975 was \$7,887.

Physicians' business expenses (including malpractice insurance) have been rising faster than increases in fees. From 1966-74, business costs per patient rose 8.3% per year, while fees, according to the Consumer Price Index, went up an average annual rate of 6.2%. ■

## Heimlich Maneuver Tape Begins TV Airing

A 30-second public service announcement, dramatically illustrating use of the Heimlich Maneuver to rescue a food-choking victim, is being shown on all of Alabama's 17 commercial stations during public service time.

The film, shot at the Riveria Restaurant, Montgomery, by a Montgomery-based advertising firm, should receive extensive play for several months since its message is not seasonal. ■

# Letters to the Editor

## UAH Surgical Conference

Enclosed please find a copy of the mailing for a surgery conference to be held in Huntsville, Alabama, Feb. 8 & 9, 1977, and sponsored by the Continuing Education Department of the School of Primary Medical Care, The University of Alabama in Huntsville. Would you please make the proper announcements of this conference in the calendars of *The Alabama M.D.*, and the *Journal of The Medical Association of the State of Alabama*.

Thank you for your kind consideration.

Sincerely,

Carol C. Malone, Assistant  
Continuing Education  
School of Primary Medical Care  
Huntsville, Alabama

*The Continuing Medical Education Department of the School of Primary Medical Care, UAH, has announced the schedule for "Surgery, 1977: Current Diagnosis and Therapy for Common Surgical Problems," to be held at the Ambulatory Care Center, February 8-9, 1977.*

*The course has Category I accreditation, 13 hours toward the AMA Physician's Recognition Award. Application has been made for AAFP prescribed credit hours. For further information and registration, physicians may contact: Ambulatory Care Center, 201 Governors Drive, Huntsville, 35801. ■*

## Mirax vs. The Fire Ant

One of the puzzling dilemmas of our technological times is that frequently when we approach a problem we cannot be sure that the "cure" is not worse than the problem itself. The present controversy of the ravages of the fire ant through the southern states versus the possible hazards of the insecticide Mirex is just such a dilemma. Since Mirex is at present the most effective control measure against the spreading fire ant, this kind of technological problem remains sharply in focus.

The Environmental Protection Agency announced recently a decision it had reached to begin phasing out Mirex by the end of 1977, unless some convincing statistics can be compiled which will show that there are many more plus than minus factors in the use of the insecticide.

Intrigued by the puzzle, I would like to survey my fellow physicians and health services personnel of the states affected by the fire ant problem as to their findings regarding either or both horns of this particular dilemma. To this end, I would greatly appreciate answers to the following series of questions by all those in the know who have time and energy to spare to the problem:

1. How many individuals have been stung by fire ants in your area, region, or state? Can you estimate a probable number? State sex.

2. What kind of reactions to fire ants have you seen? Local reactions? How great was the swelling? Larger than an inch? Larger than 4 to 6 inches? Did swelling involve joint? More than 1 joint? System reactions? What symptoms? (Underline symptoms if present). Wheezing, hives, angioedema, urticaria, laryngeal edema. How soon do symptoms occur? How long did they last? Superimposed infection? Does this occur often? Are such infections severe?

3. Have patients reacting to fire ants required hospitalization? If so, how many and for approximately how long?

4. To your knowledge, have there been any fatalities from fire ant stings in your area, region, or state? If so, how many? Could you provide details?

5. If you have any case histories of reactions to fire ant stings, they would be greatly appreciated. They should include age, sex, race, symptoms, treatment, and outcome.

6. Have you any knowledge as to the success or failure of hyposensitization to fire ant venom? If so, details would be appreciated.

7. To your knowledge have there been any cases of Mirex poisoning and/or illnesses attributed to the use of Mirex in your area, region, or state? If so, could you provide information about such incidents? Case histories, if available, about such illnesses would be greatly appreciated. They should include age, sex, race, symptoms, treatment and outcome.

8. Have you a personal opinion about this particular problem? Do you believe the possible hazards of fire ant outweigh the possible hazards of the use of Mirex? Or vice versa.

Thank you very much.


Claude A. Frazier, M.D.  
Doctors Park—Bldg. 4  
Asheville, N.C. 28801 ■

# MEDIX

the award-winning  
medical TV series that  
takes a real look at  
real medicine

consult local listing for time/channel





## Natural balance doesn't always come naturally

Big Balanced Rock, Chiricahua Mountains, Arizona (approx. 1,000 tons)

- **Most Widely Prescribed**—Antivert is the most widely prescribed agent for the management of vertigo\* associated with diseases affecting the vestibular system such as Menière's disease, labyrinthitis, and vestibular neuronitis.
- **Relief of Nausea and Vomiting**—Antivert/25 can relieve the nausea and vomiting often associated with vertigo\*.
- **Dosage for Vertigo\***—The usual adult dosage for Antivert/25 is one tablet t.i.d.

#### BRIEF SUMMARY OF PRESCRIBING INFORMATION

\*INDICATIONS. Based on a review of this drug by the National Academy of Sciences—National Research Council and/or other information, FDA has classified the indications as follows:

*Effective:* Management of nausea and vomiting and dizziness associated with motion sickness.

*Possibly Effective:* Management of vertigo associated with diseases affecting the vestibular system.

Final classification of the less than effective indications requires further investigation.

**CONTRAINDICATIONS.** Administration of Antivert (meclizine HCl) during pregnancy or to women who may become pregnant is contraindicated in view of the teratogenic effect of the drug in rats.

The administration of meclizine to pregnant rats during the 12-15 day of gestation has produced cleft palate in the offspring. Limited studies using doses of over 100 mg./kg./day in rabbits and 10 mg./kg./day in pigs and monkeys did not show cleft palate. Congeners of meclizine have caused cleft palate in species other than the rat.

Meclizine HCl is contraindicated in individuals who have shown a previous hypersensitivity to it.

**WARNINGS.** Since drowsiness may, on occasion, occur with use of this drug, patients should be warned of this possibility and cautioned against driving a car or operating dangerous machinery.

*Usage in Children:* Clinical studies establishing safety and effectiveness in children have not been done; therefore, usage is not recommended in the pediatric age group.

*Usage in Pregnancy:* See "Contraindications."

**ADVERSE REACTIONS.** Drowsiness, dry mouth and, on rare occasions, blurred vision have been reported.

More detailed professional information available on request.

**ROERIG** 

A division of Pfizer Pharmaceuticals  
New York, New York 10017

**Antivert<sup>®</sup>/25**   
(meclizine HCl) 25 mg. Tablets  
**for vertigo\***



**RECENT CHANGES**

**federal register**

**Providing Drug Information to Physicians**

**Informational Bulletin #433-76**

**National Health Insurance**

**special report**  
**Malpractice insurance:**

**drug bulletin**

**Health care doesn't need more red tape**

**Drug firms challenge 'MAC' rules**

**Drug Substitution**

**The Currents: Disseminator of Health Progress**  
**RESEARCH**

**Mailgram**



# THERE ARE A LOT OF PEOPLE GETTING BETWEEN YOU AND YOUR PATIENT.

Medicine today is in the spotlight, subjected to all kinds of scrutiny. Your control over patient therapy is being monitored, judged and occasionally abrogated, sometimes by unknown third parties.

The worry is that in the wake of this focus, the relationship between you and your patient will be weakened, without offsetting benefits. Consider three examples:

**Drug substitution** In most states, pharmacy laws, regulations or professional custom stipulate that your non-generic prescriptions be filled with the precise products you prescribe. But in the last five years, a dozen or more State laws have been changed, permitting the pharmacist in most cases to select a product of the same generic drug to fill any prescription.

Ironically, this dilution of physician control has taken place against a background of growing evidence that purportedly equivalent drug products may be inequivalent, since neither present drug standards nor their enforcement are optimal. In fact, the FDA itself says it has not enforced the same standards for hundreds of "follow-on" products that it had applied to the original NDA approvals. Thus physician control over patient therapy is being eroded with a risk that patients may be exposed to drugs of uncertain quality.

The major advertised claim for substitution is reduced prescription prices for consumers. Yet no documentation of any significant savings has been produced.

**MAC** Maximum Allowable Cost, MAC for short, is a Federal regulation designed to cut the Government's drug bill by setting price ceilings for drugs dispensed to Medicare and Medicaid patients. Unless the prescriber certifies on the prescription that a particular product is medically necessary, the Government intends to pay only for the cost of the lowest-priced, purportedly-equivalent,

generally-available product. The effect of the program may be that elderly and indigent patients will be restricted to products which someone in Washington believes are priced right. Practicing doctors will have little to say about administration of the program, since Government will have absolute authority to make its choices stick.

**The drug lag** The future of drug and device research depends upon a scientific and regulatory environment that encourages therapeutic innovations. The American pharmaceutical industry annually is spending more than \$1 billion of its own funds and evaluating more than 1,200 investigational compounds in clinical research. Disease targets include cancer, atherosclerosis, viruses and central nervous system disorders, among others. But there is a major barrier to the flow of new drugs to your patients: The cost of the research is more than ten times what it was, per product, in 1962; and whereas governmental clearance of new drug applications took six months then, it commonly consumes two years now.

The FDA needs adequate time, of course, to consider data. But it is equally clear that the present approval process contributes to needless delay of needed therapy. That's why the increased efficiency of the drug approval process is vital to all our futures.

If these issues concern you, we suggest that you make your voice heard—among your colleagues and your representatives in State legislatures and in Washington.

It could make a difference in your practice tomorrow.



Pharmaceutical Manufacturers Association  
1155 Fifteenth Street, N.W., Washington, D.C. 20005

**MAS****MUTUAL ASSURANCE SOCIETY OF ALABAMA****THE NEW PHYSICIAN-OWNED**

Employers Insurance of Wausau will discontinue writing medical professional and premises liability insurance in Alabama as of July 31, 1977. Thanks to the advance notice given by this company, the officers of your Medical Association have arranged to provide professional and premises liability coverage for you by the creation of an insurance company to be owned in its entirety by the physicians of Alabama. The name of this company will be **MUTUAL ASSURANCE SOCIETY OF ALABAMA**.

For as long as may be required to train personnel, the usual insurance company functions such as underwriting, classifying, rating and claims handling for the new company will be performed by a team of highly trained expert consultants working closely with the Medical Association. Policies issued by The Society will not be cancelled, non-renewed or restricted without prior consultation with the Medical Association.

Building an adequate surplus base for The Society requires the participation of substantial number of Alabama physicians. Therefore, the success of The Society will depend upon your participation. Many of the most frequently asked questions about The Society—its formation and services—are answered below.

1. **QUESTION:** How much will participation in the insurance program to be offered by The Society cost me?

**ANSWER:** In addition to the payment of insurance premiums for professional liability coverage, applicants for membership in The Society are required to pay a one-third non-refundable membership fee and to purchase surplus debentures of The Society. Applicants are also required to sign Limited Guaranty Agreements guaranteeing a portion of a bank loan to The Society in the maximum amount of \$3,200.

Insurance coverage for practice entities will also be available at an additional premium upon the payment of a non-refundable fee of \$25 and the purchase of surplus debentures in the amount of \$225 for each such practice entity. Coverage for non-physician medical employees will be available to physicians electing professional liability coverage on the occurrence basis at an addition premium upon the payment of a non-refundable fee of \$25 and the purchase of surplus debentures in the amount of \$225 for each such employee.



# LIABILITY INSURANCE COMPANY

2. **QUESTION:** Must I be a member of the Medical Association to be eligible to enroll?

**ANSWER:** Yes. We will, however, accept applications from non-members provided that they become members of the Association within 100 days of the effective date of their insurance coverage.

3. **QUESTION:** What limits of liability will be available for Professional Liability and for Office Premises Liability Insurance?

**ANSWER:** It is anticipated that limits of liability up to a maximum of \$1,000,000 per person and \$1,000,000 annual aggregate will be available for Professional Liability Insurance. This, however, will depend upon the amount of The Society's surplus and the availability of re-insurance for liability limits which The Society cannot underwrite. For Office Premises Liability, a single, combined limit of \$300,000 will be available for Coverage D (Personal Injury) and \$50,000 for Coverage E (Property Damage). Both Coverage D and Coverage E will be on an occurrence basis.

4. **QUESTION:** Will The Society offer an "Umbrella Liability" policy?

**ANSWER:** Later, perhaps, but not at the outset.

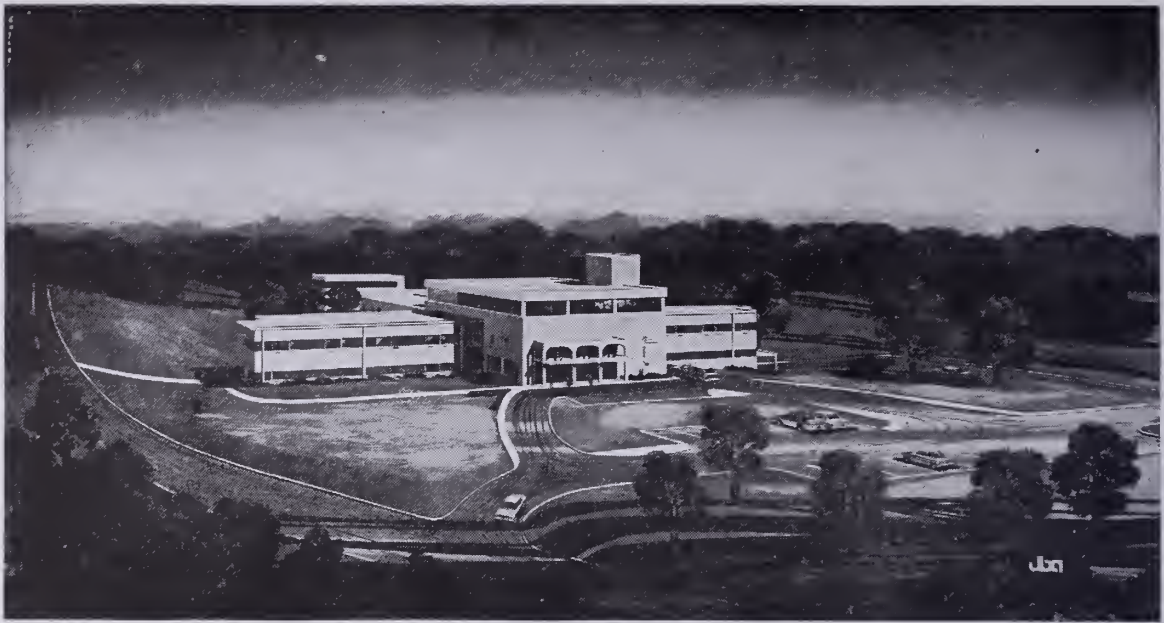
5. **QUESTION:** Will The Society offer Professional Liability Insurance on an "OCCURRENCE" basis or on a "CLAIMS MADE" basis?

**ANSWER:** You may elect to take coverage on either an "OCCURRENCE" basis, or on a "MODIFIED" CLAIMS MADE basis.

6. **QUESTION:** How do I enroll in the program?

**ANSWER:** Proceed in accordance with a checklist which has been mailed to MASA members. Your application for membership, regardless of when you desire your coverage to be effective, should be completed and returned with all monies and documents described on the checklist at your earliest convenience to assure The Society of sufficient financial support to commence its operation.

For additional information, please write the Executive Director of Mutual Assurance Society of Alabama, Mr. Dow Walker, 920 South 19th Street, Birmingham, Alabama 35205.



## HILL CREST HOSPITAL — For Intensive Treatment of Psychiatric Disorders

This 113-bed non-governmental psychiatric hospital provides modern facilities for diagnosis and treatment of patients with all degrees of illness, including those who show severely disturbed behavior. Alcoholic and drug abuse patients are also accepted.

In addition to care by psychiatrists and by consultants in all medical specialties, the treatment program includes occupational, recreational, and physical therapy, social services, and tutoring. Emphasis is on short-term, intensive treatment of voluntary patients.

Hill Crest is a member of: American Hospital Association, National Association of Private Psychiatric Hospitals, Alabama Hospital Association, Birmingham Regional Hospital Council.

Accredited by Joint Commission on Accreditation of Hospitals. Medicare Approved. Blue Cross Participating Hospital.

## HILL CREST HOSPITAL

*HILL CREST FOUNDATION, INC.*

6869 Fifth Avenue South

Birmingham, Alabama 35212

PHONE: (205) 836-7201



# DYAZIDE<sup>®</sup>

Each capsule contains 50 mg. of Dyrenium<sup>®</sup> (triamterene, SK&F Co.) and 25 mg. of hydrochlorothiazide.

Trademark

## MAKES SENSE FOR LONG-TERM CONTROL OF HYPERTENSION\*

**LOWERS  
BLOOD  
PRESSURE**

**CONSERVES  
POTASSIUM**

Before prescribing, see complete prescribing information in SK&F Co. literature or PDR. A brief summary follows:

**\* WARNING**

This fixed combination drug is not indicated for initial therapy of edema or hypertension. Edema or hypertension requires therapy titrated to the individual patient. If the fixed combination represents the dosage so determined, its use may be more convenient in patient management. The treatment of hypertension and edema is not static, but must be reevaluated as conditions in each patient warrant.

**\* Indications:** When the fixed combination represents the dosage determined by titration: Adjunctive therapy in edema associated with congestive heart failure, hepatic cirrhosis, the nephrotic syndrome. Corticosteroid and estrogen-induced edema, idiopathic edema; hypertension, when the potassium-sparing action of its 'Dyrenium' component is warranted.

**Contraindications:** Further use in progressive renal or hepatic dysfunction; hyperkalemia. Pre-existing elevated serum potassium. Hypersensitivity to either component or other sulfonamide-derived drugs. Routine use of diuretics in otherwise healthy pregnancy.

**Warnings:** Do not use potassium supplements, dietary or otherwise, unless hypokalemia develops or dietary intake of potassium is markedly impaired. If supplementary potassium is needed, potassium tablets should not be used. Hyperkalemia can occur, and has been associated with

cardiac irregularities. It is more likely in severely ill patients with urine volume less than one liter/day, the elderly or diabetics, with suspected or confirmed renal insufficiency. Periodic determinations of serum K<sup>+</sup> should be made. If hyperkalemia develops, substitute a thiazide alone, restrict K<sup>+</sup> intake. The presence of a widened QRS complex or arrhythmia in association with hyperkalemia requires prompt additional therapy. Thiazides are reported to cross the placental barrier and appear in breast milk; fetal or neonatal hyperbilirubinemia, thrombocytopenia, altered carbohydrate metabolism and other adverse reactions that have occurred in the adult may result. When used in pregnancy or in women who might bear children, weigh potential benefits against possible hazards to fetus. Adequate information on use in children is not available.

**Precautions:** Do periodic serum electrolyte determinations (particularly important in patients vomiting excessively or receiving parenteral fluids). Periodic BUN and serum creatinine determinations should be made, especially in the elderly, diabetics, or those with suspected or confirmed renal insufficiency. Watch for signs of impending coma in severe liver disease. If spiro-lactone is used concomitantly, determine serum K<sup>+</sup> frequently; both can cause K<sup>+</sup> retention and elevated serum K<sup>+</sup>. Two deaths have been reported with such concomitant therapy (in one, recommended dosage was exceeded, in the other serum electrolytes were not properly monitored). Observe regularly for possible blood dyscrasias, liver damage, other idiosyncratic reactions. Blood dyscrasias have been reported in patients receiving Dyrenium<sup>®</sup> (triamterene, SK&F Co.), and

leukopenia, thrombocytopenia, agranulocytosis, and aplastic anemia have been reported with thiazides. Do periodic blood studies in cirrhotics to check for nondrug-related variations in blood pictures, and in patients with folic acid depletion, since 'Dyrenium' may contribute to appearance of megaloblastosis. Antihypertensive effect may be enhanced in post-sympathectomy patients. Use cautiously in surgical patients. The following may occur: transient elevated BUN or creatinine or both, hyperglycemia and glycosuria (diabetic insulin requirements may be altered), hyperuricemia and gout, digitalis intoxication (in hypokalemia), decreasing alkali reserve with possible metabolic acidosis. 'Dyazide' interferes with fluorescent measurement of quinidine.

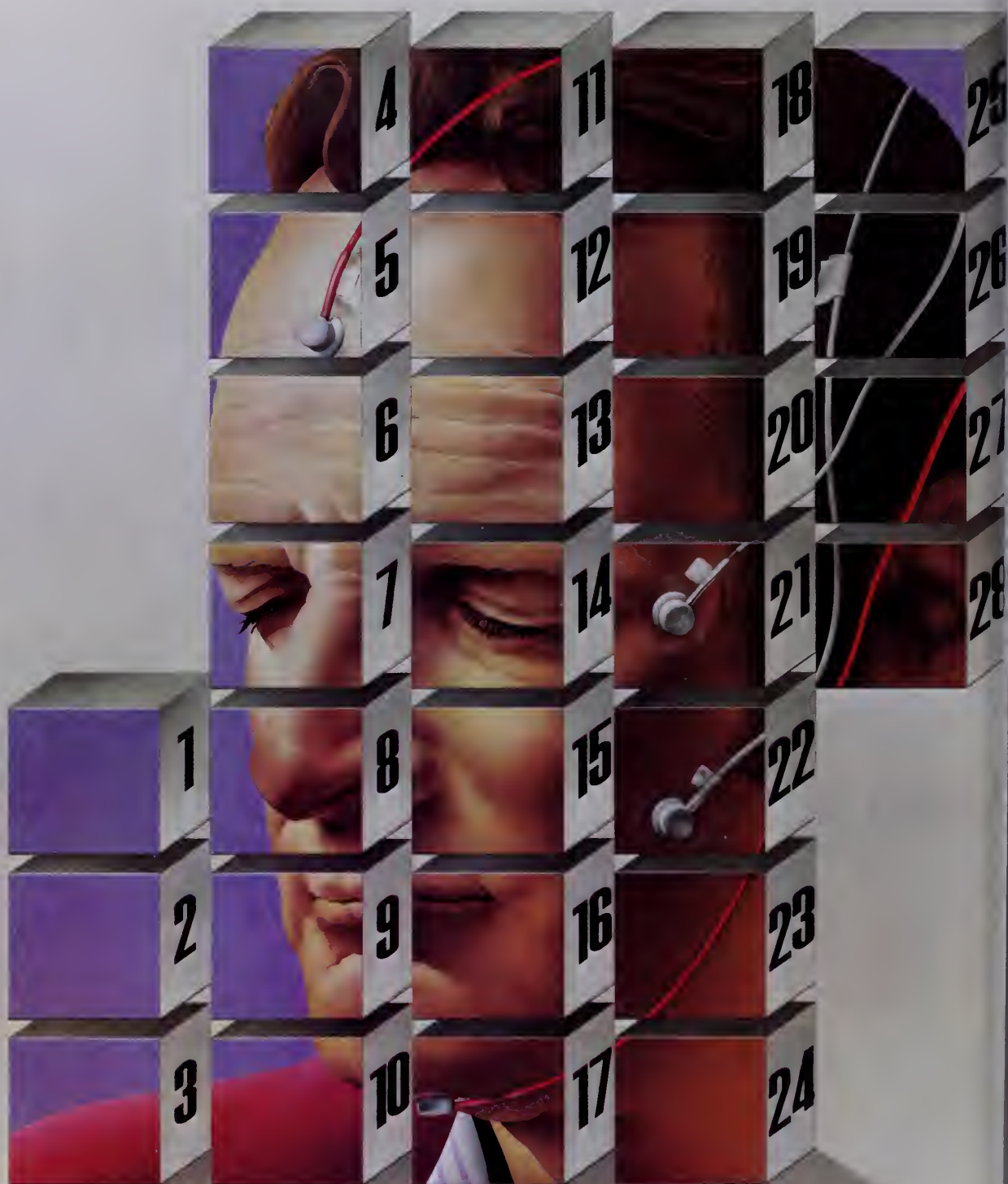
**Adverse Reactions:** Muscle cramps, weakness, dizziness, headache, dry mouth; anaphylaxis, rash, urticaria, photosensitivity, purpura, other dermatological conditions; nausea and vomiting, diarrhea, constipation, other gastrointestinal disturbances. Necrotizing vasculitis, paresthesias, icterus, pancreatitis, xanthopsia and, rarely, allergic pneumonitis have occurred with thiazides alone.

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## Continued relief of insomnia in patients with chronic insomnia

Since insomnia is often transient and intermittent, the prolonged administration of a hypnotic is generally not necessary or recommended. But when insomnia is a chronic or recurring problem, continued effectiveness is as important as initial effectiveness. Results of a recently published sleep research laboratory study<sup>1</sup> demonstrated that, while pentobarbital lost effectiveness within two weeks, Dalmane maintained effectiveness for 28 consecutive nights. Similar 28-night results with Dalmane, displayed below, were obtained by a second sleep research group.<sup>2</sup> In previous studies,<sup>3</sup> both chloral hydrate and glutethimide began to lose effectiveness after several nights, while Dalmane maintained effectiveness throughout the 14 medication nights. Whether the problem is difficulty falling asleep, staying asleep or sleeping long enough, consider these results when selecting a sleep medication.

## Patient benefits include relative safety, infrequent morning "hang-over"

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## Continued relief of insomnia: One more good reason to specify

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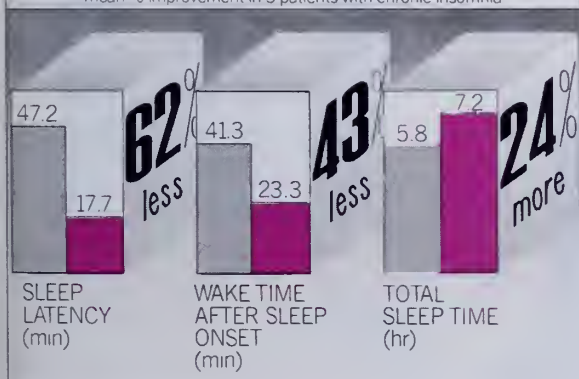
One 30-mg capsule *h.s.* — usual adult dosage  
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One 15-mg capsule *h.s.* — initial dosage for  
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## whenever a hypnotic is needed

### SLEEP RESEARCH LABORATORY PROOF OF EFFECTIVENESS DURING 28 NIGHTS<sup>2</sup>

mean % improvement in 5 patients with chronic insomnia



3 baseline placebo nights

Dalmane (flurazepam HCl)  
nights 1-3, 12-14, 26-28



Please see following page for a summary of product information.

Objective proof:  
continued insomnia relief without  
increasing dosage...<sup>1,2</sup>

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in the sleep research  
laboratory...

during 28 consecutive nights of  
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- ☐ effectiveness with a single  
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maintained
- ☐ sleep for 7 to 8 hours, on  
average, maintained
- ☐ less time awake during the  
night, maintained

Before prescribing Dalmane (flurazepam HCl), please consult complete product information, a summary of which follows:

**Indications:** Effective in all types of insomnia characterized by difficulty in falling asleep, frequent nocturnal awakenings and/or early morning awakening; in patients with recurring insomnia or poor sleeping habits; in acute or chronic medical situations requiring restful sleep. Since insomnia is often transient and intermittent, prolonged administration is generally not necessary or recommended.

**Contraindications:** Known hypersensitivity to flurazepam HCl.

**Warnings:** Caution patients about possible combined effects with alcohol and other CNS depressants. Caution against hazardous occupations requiring complete mental alertness (e.g., operating machinery, driving).

**Usage in Pregnancy:** Several studies of minor tranquilizers (chlordiazepoxide, diazepam, and meprobamate) suggest increased risk of congenital malformations during the first trimester of pregnancy. Dalmane, a benzodiazepine, has not been studied adequately to determine whether it may be associated with such an increased risk. Because use of these drugs is rarely a matter of urgency, their use during this period should almost always be avoided. Consider possibility of pregnancy when instituting therapy; advise patients to discuss therapy if they intend to or do become pregnant.

Not recommended for use in persons under 15 years of age. Though physical and psychological dependence have not been

reported on recommended doses, use caution in administering to addiction-prone individuals or those who might increase dosage.

**Precautions:** In elderly and debilitated, limit initial dosage to 15 mg to preclude oversedation, dizziness and/or ataxia. Consider potential additive effects with other hypnotics or CNS depressants. Employ usual precautions in patients who are severely depressed, or with latent depression or suicidal tendencies. Periodic blood counts and liver and kidney function tests are advised during repeated therapy. Observe usual precautions in presence of impaired renal or hepatic function.

**Adverse Reactions:** Dizziness, drowsiness, lightheadedness, staggering, ataxia and falling have occurred, particularly in elderly or debilitated patients. Severe sedation, lethargy, disorientation and coma, probably indicative of drug intolerance or overdosage, have been reported. Also reported: headache, heartburn, upset stomach, nausea, vomiting, diarrhea, constipation, GI pain, nervousness, talkativeness, apprehension, irritability, weakness, palpitations, chest pains, body and joint pains and GU complaints. There have also been rare occurrences of leukopenia, granulocytopenia, sweating, flushes, difficulty in focusing, blurred vision, burning eyes, faintness, hypotension, shortness of breath, pruritus,

skin rash, dry mouth, bitter taste, excessive salivation, anorexia, euphoria, depression, slurred speech, confusion, restlessness, hallucinations, paradoxical reactions, e.g., excitement, stimulation and hyperactivity, and elevated SGOT, SGPT, total and direct bilirubins and alkaline phosphatase.

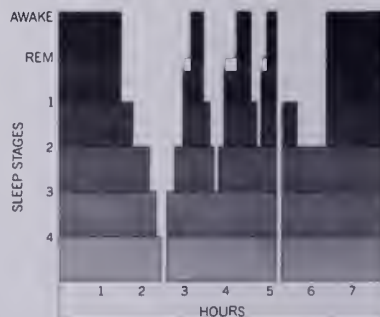
**Dosage:** Individualize for maximum beneficial effect. *Adults:* 30 mg usual dosage; 15 mg may suffice in some patients. *Elderly or debilitated patients:* 15 mg initially until response is determined.

**Supplied:** Capsules containing 15 mg or 30 mg flurazepam HCl.

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# Pediatrics In Colonial America

FROM the time of the arrival of the first permanent settlers in Jamestown (1607) and in Plymouth (1620) until the colonists declared their independence (1776), medical knowledge, writing and practice in this country was quite primitive and the care of children was especially poor. It is not until Job Lewis Smith (1827-97) and Abraham Cobi (1830-1919) that an interest in medical care of children would emerge.

## Early Physicians

Physicians had accompanied the first settlers. Some of the more prominent early physicians were Will Wilkinson, Thomas Wotton, Walter Russel, Lawrence Bohun, and John Stettin.<sup>1,2</sup> In these early years, diseases were rampant and caused many deaths, for instance, of the 1700 colonists who settled in Jamestown before 1618, 1100 died during the first few years.<sup>1</sup>

Samuel Fuller (1580-1633) was the first physician in Massachusetts and New England.<sup>3</sup> Fuller, a deacon who had no real medical training, had emigrated to America with William Bradford on the Mayflower. He served from 1620 until 1633, when he died in a smallpox epidemic; he cared for children in the epidemics of typhus and smallpox in 1621, and ventured to Salem in 1628 and 1629 at the request of Governor Endicott to aid in epidemics. Colonial physicians were often ministers, teachers, or "governors" such as John Endicott (Salem) and John Winthrop (Boston).

John Winthrop Jr. (1607-1676) was the first Governor of Connecticut and was known for his knowledge of diseases of children and for his personal library of over 1000 volumes. One of the letters in the possession of the Massachusetts Historical Society written to Winthrop by a John Stone in 1652 is revealing of medical practice at that time:<sup>1</sup>

"I am bold to write a few lines about our child. He is 23 weeks old, hath been somewhat ill 3 or 4 weeks, unquite, his eyes looking yellow, having a cough, especially when he takes his visutals. We thought he might have been breeding teeth, but about a week past we perceived yt. He has the yellow jaundise. By Mrs. Hooker's advice we gave him Barbaric barkle boyled in beer, with saffron, twice a day, for two dayes together and one time saffron alone. Also, lice 2 or 3 times and Turmerick twice.

We hoped yt. The Jaundise had been cured, because he was sometimes more chearefull and had a better appetite. But the last Saterdaie at night he was very unquite, heaive and could not sleep and upon the Sabbath seemed to looke somewhat swart in the face. In the afternoone we gave him about 3 quarters of a grain of your purgin powder, which we had...which caused him to vomit twice or thrice, and to purge downwards thrice."

## Education

Well-trained practitioners were rare during colonial days. Even at the end of this period, in 1776, 3500 practitioners of medicine served the colonists but only 200-400 had a degree from a medical college and there was little interest in

pediatrics.<sup>4</sup> Furthermore, most major developments in medicine occurred in Europe and virtually all formal medical education of America physicians were received there. Such men as Harvey, Leeuwenhoek, Morgagni, Baillie, Hunter and Jenner were making their impact on medicine.<sup>5,6</sup>

Harvard was founded in 1636 and a few other institutions followed. Yet, there were no medical schools. As early as 1645, graduates from Harvard went to Europe to complete their medical education. Such men as Samuel Bellingham and Henry Saltonstall were examples, both graduated at the first commencement of Harvard College (1642). Although in 1647, John Eliot had made the case for medical study at Harvard. The first such student at Harvard was Elisha Cooke (1660). Cooke graduated from Harvard in 1657 and later became Justice of the Supreme Court of the Massachusetts Colony.

The first medical school in the colonies was the Medical College of Philadelphia (1765) which later became the University of Pennsylvania; two years later the Department of King's College was formed and later became Columbia University.<sup>4</sup>

## Hospitals

There were no hospitals or clinics for sick children. In Virginia in 1612, a house was built and surrounded by block houses and stockades on the James River at Henricopolis, it contained 80 beds and was the first hospital. However, it was destroyed in an Indian attack ten years later. Although similar "houses" and "poor-houses" to care for the indigent sick were established, the first true hospital exclusively for the sick was the Pennsylvania Hospital in Philadelphia, founded in 1751.

In fact, it was toward the end of the colonial period, (1769) that the first pediatric hospital in England was established by George Armstrong, but it unfortunately closed without funds in 1781.<sup>7</sup> Although orphan homes had existed in numerous cities for over a hundred years, these were not hospitals and hospitals for children in both Europe and America were not organized until the nineteenth century.

## Diseases of Children

Infants and children with congenital anomalies<sup>1,8</sup> were considered curiosities and to be untreatable. The first recorded instance of malformation was in Boston in October, 1636. A female annenecephalic monster was born to a Mary Dyer who became the subject of ridicule, suspected of "heresy and improper practices" and was "condemned and done to death as a quackress."

Infections were the most frequent affliction and children died by the scores. *Measles* was frequently seen in epi-

## Highlights Of American Medicine

By Ronald D. Greenwood, M.D.  
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# Pediatrics In Colonial America

demics in the colonies; such epidemics were recorded by Jacobi<sup>8</sup> as occurring in all the colonies in 1713, 1733, 1740-41, 1748-53, 1758-59 and 1769. There were "local" epidemics in Connecticut (1740-41), Charleston, (1722) and Philadelphia (1773).

Measles was simultaneously seen with influenza, variola and other febrile illnesses. Scores of children succumbed to it or its complications. The earliest medical writing in the colonies<sup>1,9</sup> concerned both measles and smallpox and was a 12 x 17 inch "broadside," "A Brief Rule to Guide the Common People of New England, How to Order Themselves and Theirs in the Smallpocks or Measles," written by the Reverend Thomas Thatcher (1626-1676), a clergyman, orientalist and practitioner in Weymouth and Boston. It was intended to help manage this disease. Thatcher warned against "over heating, excessive diaphoresis and weakening diet and medication."

The first medical publication in Europe had also been a single sheet which described the procedure of bloodletting (1456). Thatcher was the first minister of the Old South Church in Boston whose medical education had come from Charles Chauncy, a prominent physician and the second president of Harvard College (1654).

*Influenza*<sup>8</sup> was frequent and was severe in 1647, 1655, 1660, 1697, 1733, 1737, 1747, 1757, 1761, 1767 and 1772. Benjamin Rush (1743-1818) described influenza in children in 1770. He noted they had perspiration, fever, catarrh of the respiratory organs, occasional nausea or vomiting, and a few with diarrhea. Recovery was slow and there was a tendency to relapse.

William Douglas<sup>10</sup> described *scarlet fever* based on a severe epidemic in Boston in "The Practical History of a New Epidemical Eruptive Miliary Fever, with an Angina Ulcerulosa which Prevailed in Boston, New England in the Years 1735 and 1736."

*Pertussis* was first noted<sup>8</sup> on November 15, 1649; by 1650 this epidemic had subsided and a Thanksgiving Day was proclaimed. With no treatment available toward the end of the colonial period, epidemics still reigned. In 1759, the editor of the South Carolina Gazette referred to "that violent and present reigning disorder, called the whooping cough." A number of articles regarding its treatment were published.<sup>1</sup>

*Diphtheria* was first noted<sup>1,8</sup> in December 1659 in Boston; three of the children of Samuel Denforth died in one night. This epidemic spread and lasted until 1662 and, to commemorate its end, Connecticut proclaimed a Thanksgiving Day. New England suffered several epidemics in the late 1600's and in 1735. This latter epidemic was written about by William Douglas:<sup>1,10</sup>

"The throat became swollen and coated with white and ash gray spots, an eruption appeared on the skin; great debility overcame the entire body, with a marked tendency to putridity."

"It was first noticed in Kingston, township, on the 20th of March 1735 about 50 miles... (from) Boston... the first victim was a child who died in three days; and about a week after, three children were seized in another family four miles distant; and they also died on the third day. It continued spreading gradually, seizing here and there particular families, with that

degree of violence that of the first 40 cases; nor recovered. Some of the patients died of a sudden acute necrosis, or mortification; but most of them were carried off by a sympathetic affection of the fauce neck or air passage; or, by an infiltration and tumefaction of the chops, a forepart of the neck which became so enlarged and turgid, as to bring upon a level of all parts lying between the chin and sternum occasioning a strangulation of the patient in a very short time."

"Its first recognized appearance in Boston was on the 20th of August, 1735, in a child... who had white specks in the throat, and a cutaneous efflorescence."

By September, 1735, several areas of Boston were involved and by March, 1736, the death rate was quite high. In areas around Boston up to 1 in 3 died, but in Boston itself "not above 1 in 35 succumbed." The disease spread from Kingston to Boston, Connecticut, New York and New Jersey. In 1736 the Selectmen of Boston and Practitioners met and concluded: "that the present prevailing distemper appears to us to proceed some affection of the air and not from any personal infection received from the sick or good in their neighborhood." An important scientific contribution to American pediatrics was in fact, made in this disease by Samuel Bard (1742-1821): "An Enquiry into the Nature, Cause and Cure of Angina Suffocativa or sore throat distemper" (1771) in which he described diphtheria and related clinical cases and pathologic findings.

Prior to this, (1740) Jonathan Dickinson (1687-1740) had written an important contribution, "Observations on that terrible disease vulgarly called the Throat Distemper with advice as to the Method of Cure in a Letter to a Friend." Although the publication of the latter was not until 1740, it was sent in 1738-39.<sup>1</sup>

*Smallpox* was another dreaded disease in the colonies,<sup>1,11,12</sup> and inoculation did not occur until 1721. It should be kept in mind that Edward Jenner would not be born for another 28 years. Cotton Mather (1663-1728), Boston minister, read the early report of smallpox inoculation ("Variolation") in the Philosophical Transactions of the Royal Society (1717) and persuaded Zabdiel Boylston to inoculate (September 7, 1721) during a severe epidemic.

Citizens and physicians of Brookline where the accident occurred, were irate, and William Douglas led the scathing denunciation. Boylston first inoculated his own son and another child and two servants and then several hundred people were inoculated with great success. Boylston had been born in Brookline in 1679 and had studied medicine both with his father and with John Cutler.

Having the courage to inoculate has left Boylston an important place in pediatric history. By 1730, a book containing Boylston's account of inoculation was published in Boston and he was treated as a hero; Boylston has become the first native of America to become a member of the Royal Society. Boylston also noted that the incubation period was shorter in inoculation than in true smallpox.

Others were also famed for their contributions in the fight against smallpox. Henry Stevenson (1721-1814) was born the year Boylston first inoculated. Late in the



colonial period, he operated an inoculating hospital and was referred to in 1765 as the "most successful inoculator in America." Adam Thomason (d.1767) a famed inoculator, was the author of a "Discourse on the Preparation of the Body for a Smallpox" in 1750, a method he developed in 1735.

Other Infections were noted early in colonial history and occurred frequently.<sup>1,8</sup> Yellow fever, brought from the West Indies in 1647, caused epidemics resulting in many deaths, 200 in Philadelphia in 1699 and 600 in 1702 in New York; the latter figure represented greater than 10% of the population of New York. It was still prevalent during the later colonial period.

"Infantile Conjunctivitis" was first recorded in 1658. Other leading infectious causes of death in early childhood were dysentery, respiratory ailments, tuberculosis and typhoid-typhus. Benjamin Rush, who described yellow fever, influenza, and measles, also wrote on cholera, "An Inquiry into the Cause and Cure of Cholera Infantum," 1773. He felt that a daily cold bath, proper dress for children, salted meat in the diet, use of wine and cleanliness would aid prevention.<sup>9</sup>

Silvester Gardiner (1707-1786), an illustrious colonial physician who organized "The Medical Society of Boston, New England," contributed to medical care of children in his paper "The Measles," and established his own apothecary shops. On October 8, 1741, with members of the Medical Society watching, he successfully performed an operation for a "stone" on a 6-year-old boy, Joseph Baker. The child had symptoms attributable to calculi since birth and was quite emaciated at the time of surgery.<sup>1</sup>

At the end of the colonial period, although medical care for children had improved, the death rate was still quite high and many of these were young children.<sup>13</sup> Knowledge of treatment of pediatric diseases at the end of the colonial period was summarized by Matthew Wilson (1734-1790) a Delaware minister and physician who was the author of a manuscript based on his practice from 1756-1787.

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# Quality Doctor Education Pioneered By Flexner Report

The education and training of medical doctors in the United States is widely recognized as equal or superior to physician training anywhere else in the world.

But this was not always so.

Prior to 1910 the training of doctors in America was often poor and haphazard and virtually unregulated. There were some very good schools, but there also were many poor ones. Schools that operated on budgets of less than \$10,000 a year; that admitted students without even high school preparation; that were formed primarily to make money for the proprietors.

In 1910 came the famed Flexner Report. Actually, it was Bulletin Number Four of the Carnegie Foundation for the Advancement of Teaching, prepared by a former school teacher turned educational philosopher, Abraham Flexner. And it revolutionized medical education.

The report was developed because the American Medical Association's Council on Medical Education requested the Carnegie Foundation to undertake an objective study of American medical education. Much of the spadework had already been done by the AMA staff under the direction of the Council.

Flexner began with this background information which pointed out deficiencies in many medical schools, and he subsequently prepared a report that became the basis for extensive reform.

Immediately on publication of the Flexner Report, the AMA's Council on Medical Education instituted a formal process of survey and accreditation, in chronological rotation, of all U.S. medical schools. Some of the poorest schools closed rather than face evaluation by impartial outsiders. By 1928 the 155 schools, many of them mere diploma mills, had been reduced to 76 that met the basic requirements for proper teaching.

Through the intervening years the number of schools has gradually built up to today's 115, all carefully structured to meet rigid accreditation requirements. And more are on the boards.

In 1910 only two medical schools required a college degree for entrance, most required no college experience at all, and many failed to require even a high school diploma. Students entered medical school grossly deficient in basic science and math, now considered absolutely fundamental preparation for the study of medicine. Flexner's proposal that two years of college science training be required for entrance soon became universally accepted. Today few enter medical school without an undergraduate degree.

Flexner also recommended the study program for a medical course of four years that is now widely followed — two years of basic training in life sciences and two more years of training in actually treating patients — the clinical years. And today advanced training beyond the four-year course is now accepted everywhere.

It would be difficult to overestimate the impact of the Flexner report of 1910, one medical historian has written. By exposing the deplorable truth about commercially dominated medical schools, his report, together with the financial support given by the then newly founded Rockefeller and Carnegie Foundations to medical colleges, inspired the reformation that produced an entirely new age of quality in American medicine.

Abraham Flexner served as the catalyst to bring to fruition the objective sought since its founding in 1847 by the American Medical Association — improvement of medical school standards, methods and facilities.

Flexner continued his studies of medical education in Europe and later served as the founding head of the Institute for Advanced Study at Princeton. He died in 1959 at the age of 93. ■

## HYPERTENSION COURSE AVAILABLE TO PHYSICIANS

A Hypertension Medical Knowledge Self-Assessment Program, believed to be the most extensive self-assessment program ever undertaken, will be introduced to the nation's physicians in January 1977. The program is being developed by the Editorial Board of *Dialogues in Hypertension* in conjunction with the National Board of Medical Examiners by Health Learning Systems, Inc. in cooperation with the National High Blood Pressure Education Program, the Council for High Blood Pressure Research of the American Heart Association and the National Kidney Foundation.

Beginning in January with a confidential pre-course evaluation, the program will continue through early 1978. Participating physicians will receive a syllabus titled "Guide to the Clinical Management of Hypertension," containing a summary of hypertension clinical management information, four audio cassette tapes in which national authorities review current concepts in the detection, diagnosis and treatment of essential and secondary hypertension, and a confidential post-course self-assessment.

The Hypertension Medical Knowledge Self-Assessment Program is acceptable for 40 prescribed hours by the AAFP and meets the criteria for 40 credit hours in Category I for the Physician Recognition Award of the AMA.

Physicians who wish to participate in the hypertension medical knowledge self-assessment program may write to Health Learning Systems, Inc., P. O. Box 7929 Philadelphia, Pennsylvania 19101. ■



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Griffiths, L. L., Brocklehurst, J. C., MacLean, R. et al  
*Diet in Old Age*, Brit. Med. J., 1 739, 1966



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**Brief summary.** Contraindicated in patients with glaucoma, renal or hepatic disease, obstructive uropathy (for example, bladder neck obstruction due to prostatic hypertrophy) or a hypersensitivity to any of the ingredients. Blurred vision, dry mouth, difficult urination, and flushing or dryness of the skin may occur at higher dosage levels, rarely at the usual dosage.

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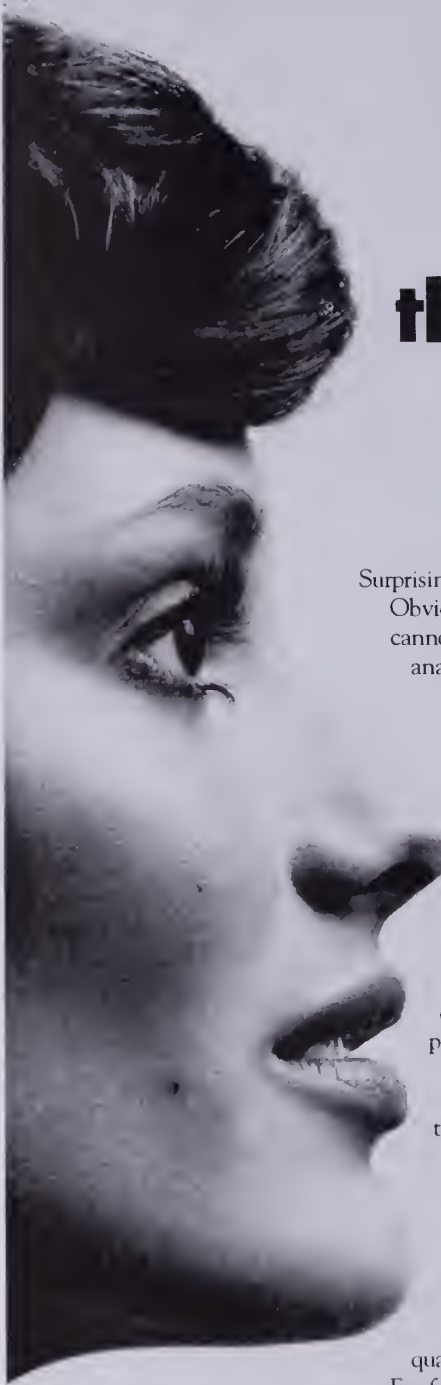
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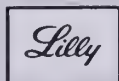
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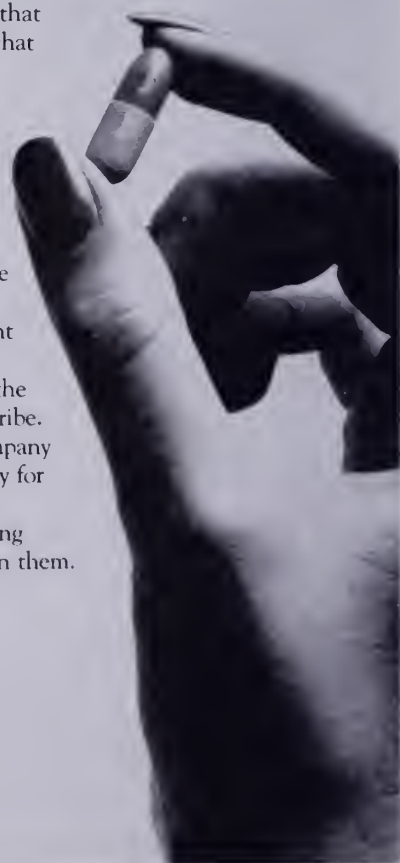
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# Neurilemmoma of the Cervical Portion of the Vagus Nerve: Differentiation From A Carotid Artery Aneurysm

C. Doyle Haynes, M.D., FACS (1), M. Ellen Buchigani, M.D. (2),  
William A. Webb, M.D., Richard L. Dempsey, M.D.\*

**THE NAME** neurilemmomas was first applied to benign tumors of nerve sheath origin by Arthur Purdy Stout<sup>1</sup>, in 1935. However, the actual pathologic entity was described much earlier, in the year 1910, by Verocay<sup>2</sup>, who called it a neurofibroma. Since Verocay's time, numerous other terms have been used to describe the same tumor: schwannoma, peri-neural fibroblastoma, peripheral glioma, and encapsulated neurofibroma.

Despite the variety of terminology, the tumor has a distinctive gross and microscopic appearance, and is relatively rare. A tumor of this type usually occurs in the head and neck region, and may be associated with any nerve sheath. The case to be presented is that of a neurilemmoma involving the cervical portion of the vagus nerve. In literature about tumors in this location, there are only 51 reported cases, to date, and only two previous reports of resection without recurrent laryngeal nerve paralysis. This is the first case with pre-operative arteriogram to show the tumor, making it a good illustration of the value of the arteriogram.

E.V.M., a 47-year-old white female, having been referred because of a pulsatile mass in the angle of the right mandible, was admitted on April 12, 1973 with the diagnosis of probable carotid artery aneurysm. Significant in her past history was a previous resection of a submaxillary tumor on the right side which was diagnosed silo-adenitis.

Review of systems was unremarkable except for a history of sinusitis.

**Physical Examination:** Blood pressure: 140/92; pulse: 76; temperature: 38 degrees c. The patient appeared to be a well developed, well nourished female in no acute distress. Positive findings were limited to the head and neck. ENT examination revealed obstruction of the left nasopharynx; a large pulsatile mass at the angle of the right mandible; no thyroid was palpable; there were no carotid bruits. There was a scar on the right mandible from previous surgery.

**X-ray and laboratory data:** Hemoglobin 13.1 gm.%; hematocrit 42%; leukocytes 5700/mm<sup>3</sup>; urine and electrolytes were normal; calcium 9.4 meg/L; glucose



FIGURE 1—Note lateral displacement of carotid artery.

71mg.%; BUN 11. The chest and skull films were negative. Sinus films showed increased density in the maxillary sinuses with an air fluid level on the left. The right carotid arteriogram with serial films demonstrated lateral displacement of the right distal common carotid, the bifurcation and proximal internal and external carotids in a sweeping curve. (Figure 1, 2 & 3). There was an area approximately 3 cm. in diameter just lateral to C2-3, which appeared to represent tumor mass formation, and there were multiple small irregular vessels which suggested tumor vascularity.

**Hospital Course:** An ENT consultant noted airway obstruction of the left nasal chamber. Considering the possibility that the neck mass represented a metastatic lesion, on April 16, 1973, and ENT examination was performed under anesthesia with biopsy of the right ethmoid area and the left posterior turbinate. The pathology report on the biopsies showed chronic inflammation, ulceration and polyp formation.

On April 20, 1973, the patient was taken into the operating room for excision of the right neck mass. An incision was made anterior to the right sternocleidomastoid muscle and carried down through the subcutaneous tissue. The right carotid artery was identified and

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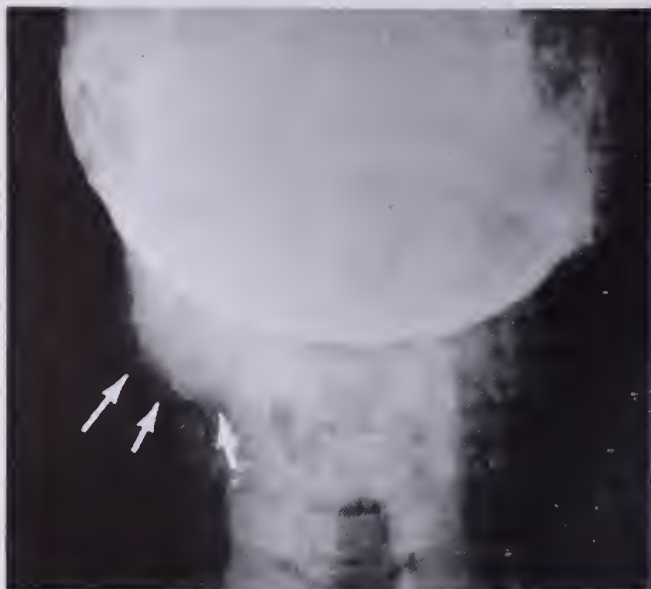


FIGURE II—Note tumor stain.

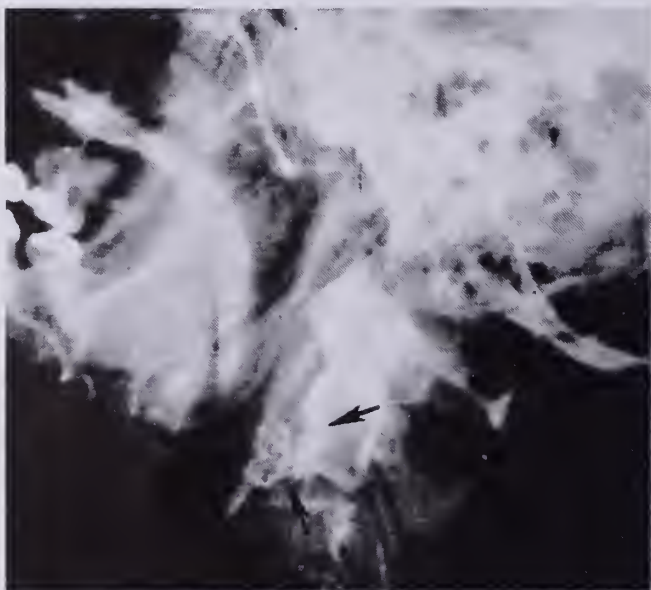


FIGURE III—Neurilemmoma of the cervical portion of the vagus nerve, note tumor stain.

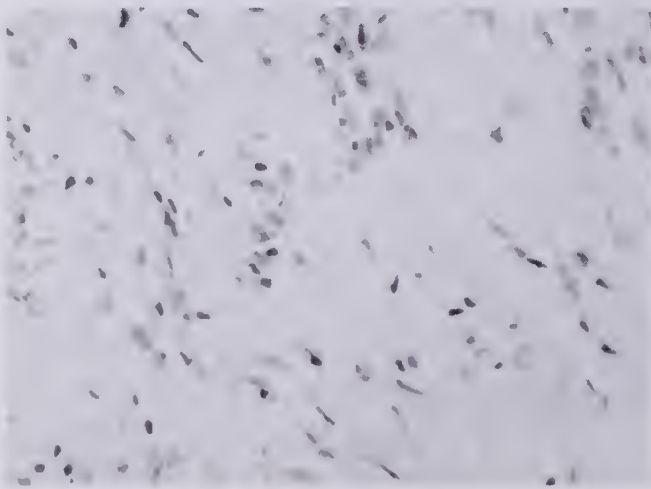


FIGURE IV—Note spindle cells with long oval nuclei Antoni type I cells.

elevated anteriorly. The mass was beneath the carotid artery and appeared to be smooth and encapsulated measuring 5 x 4 cm. The mass was dissected free with finger dissection and the entire mass removed. Frozen section revealed it to be benign. The wound was then closed in a routine manner. The ENT surgeon then performed bilateral Caldwell-Luc operations for pansinusitis.

Post-operatively, the patient has no evidence of recurrent laryngeal nerve paralysis or of Horner's syndrome. No other complications developed, and the patient was discharged on April 25, 1973. A two-year follow-up reveals no recurrence.

**Pathology:** (Gross description) The portion of tissue consists of an oval shaped mass measuring 5 x 4 cm. The mass has a relatively smooth capsule and on sectioning it shows a yellow-brown-reddish appearance with areas of light white tissue. The specimen has a rubbery feel, and shows a clear capsular segment measuring up to at least .2 cm. in most areas. The specimen is serially sectioned and shows yellow hemorrhagic appearance through all areas.

**Microscopic Description:** The tumor appears completely encapsulated. The capsule consists of concentric layers of compressed fibrous connective tissue in which one sees numerous lymphocytes and rare plasma cells. The neoplasm consists of two components: one component consisting of compactly arranged spindle cells with long oval nuclei that are frequently oriented with their long axes parallel to one another in such a manner that palisading is produced. (Fig. IV). Associated with these compacted areas and blending imperceptibly with them are areas of loose edematous almost myxoid type tissue, containing large spindle type cells admixtus with small numbers of lymphocytes and plasma cells. (Fig. V) Noted are areas of cyst formation. Focal areas of hemorrhage and early necrosis are also present within the main substance of the tumor. Hyalinized thick-walled vessels are also noted. The above findings (Figure IV) are those of a neuro-sheath tumor, solitary schwannoma or neurilemmoma. This is a solitary benign tumor that originates in a nerve trunk.

**Discussion:** Neurilemmomas are usually solitary, encapsulated tumors varying in size from less than one centimeter to ten centimeters in diameter. The cut surface may present a solid gray-white appearance of, as in the case of most large tumors which have undergone spontaneous hemorrhage and cystic degeneration, the surface may be mottled with yellow, red or cystic areas.

Microscopically, there are two types of patterns characteristic of neurilemmoma, and usually both of these are seen within the same tumor. The first is designated Antoni type I, and consist of cells arranged in cords and bands, with their nuclei aligned in neat rows, giving the appearance of a "palisade." (Fig. IV) The Antoni type II pattern presents scattered schwann cells in a mucinous appearing matrix. (Fig. V)

The tumor usually exhibits slow growth and most patients give a history of the mass being present for many months or years. The individual fibers of the associated nerve are spread out over the capsule rather



han incorporated within it. This explains why signs of interrupted nerve function are seldom present pre-operatively. This observation also lends support to excision by enucleation as adequate treatment, rather than severance of the nerve. Recurrence is rare, even if a portion of the capsule is left.

Post-operative complications include hoarseness secondary to recurrent laryngeal nerve paralysis, and Horner's Syndrome from damage to the cervical sympathetic chain.

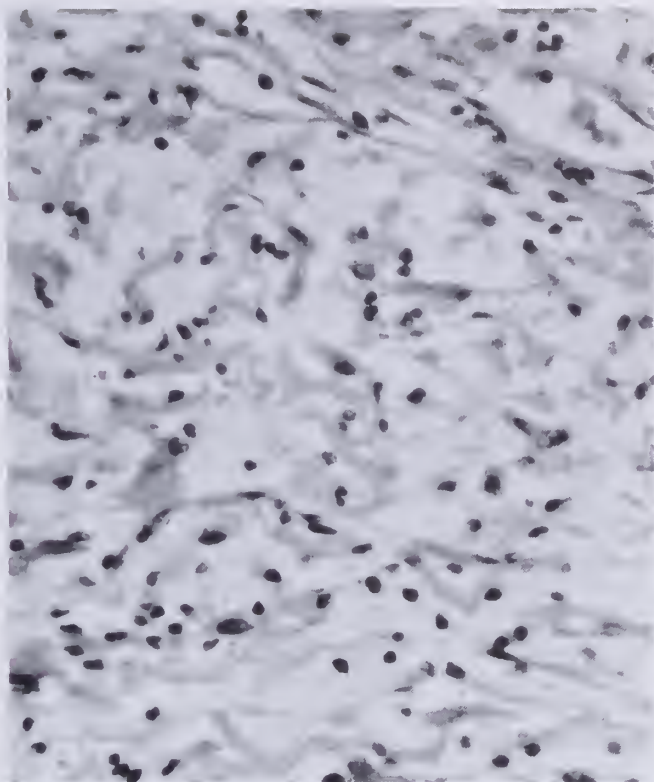
**Summary:** A case of neurilemmoma involving the cervical portion of the vagus nerve is reported. Historical, pathologic and clinical considerations are discussed. Anterograms of the neck demonstrate the tumor mass and delineate the differentiation from an aneurysm. ■

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Opelika, Alabama 36801.

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**FIGURE V**—Areas of loose edematous almost myxoid tissue, Antoni type II pattern.

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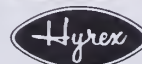
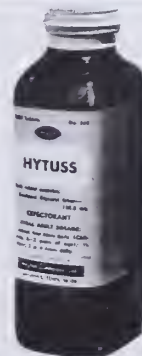
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# Upper Gastrointestinal Hemorrhage

Thomas W. Sheehy, M.D.\*

RECENTLY, I had the opportunity to observe the care of a friend with upper gastrointestinal bleeding in a small community hospital. The observation led me to write this treatise which deals with an old theme — "the proper approach to and management of upper gastrointestinal hemorrhage (UGH)".

In caring for patients with UGH, there are a number of rules that can be extremely helpful to both patient and physician. The first of these is to remember that "gastrointestinal hemorrhage is always an emergency." Another is to differentiate "massive" from "moderate" hemorrhage as soon as possible. This is important because 75 percent of patients who bleed moderately or minimally from an upper gastrointestinal lesion stop on their own accord, and usually within the first 24 hours. This is not true, however, for patients with "massive" gastrointestinal hemorrhage<sup>1</sup>.

Massive gastrointestinal hemorrhage has been defined as loss of from one-quarter to one-half the circulating blood volume. It has been characterized by the presence of combined symptoms of weakness, tachycardia, collapse, confusion, sweating, nausea, palpitation, sudden bowel movement, and anxiety. It has also been defined in association with physical findings, such as cold clammy skin, diaphoresis, and a systolic blood pressure below 90 mm Hg and a pulse rate of over 100. Ordinarily, an adult can lose 500 ml of whole blood without serious hemodynamic effects, but the sudden loss of 2000 ml of blood can kill. Indeed, it has been estimated that about 10 percent of adults who lose one-half of their circulating blood volume over a 12-hour period will die by the time they have reached the 50 percent mark if their blood loss is not replaced<sup>2</sup>.

## Etiology Of Upper Gastrointestinal Bleeding

Next, determine as quickly as you can the cause of bleeding. In this respect, statistics are sometimes helpful. Peptic ulcer still accounts for 45 to 50 percent of all upper gastrointestinal hemorrhage. Indeed, in 10 to 15 percent of individuals with peptic ulcer, hemorrhage is the presenting symptom. Other causes of UGH are gastritis, 20-40%; Mallory-Weiss Syndrome, 5-10%; esophagitis with hiatal hernia, 10-15%; esophageal varices, 10-15%; and gastric carcinoma, about 5%<sup>3</sup>.

Rare conditions, such as hereditary telangiectasia, jejunal phlebectasia, congenital aneurysm of the jejunum, pseudoxanthoma elasticum, etc., account for the remainder.

Each type of gastrointestinal lesion characteristically bleeds from one type of vessel, e.g., ulcer bleeding is always arterial, while esophagitis and gastritis induce capillary bleeding. Bleeding from esophageal or gastric

varices is venous. The exception to the rule is the Mallory-Weiss Syndrome which tears the esophageal lining and disrupts all three types of vessels.

A great deal of useful clinical information has been compiled over the years relative to upper gastrointestinal hemorrhage. Some of this is outlined below as general information or as points specific to some of the entities responsible for UGH.

## General

1. It is not dangerous to return a bleeding patient's blood pressure to normal<sup>3</sup>. Although this point has been debated for many years, it is now agreed that restoring the arterial blood pressure to normal does not encourage oozing from the ulcer nor does it dislodge the clot. Similarly, abdominal palpation, fluoroscopy, or endoscopy can be carried out without disruption of the clot or rebleeding.

2. The prognosis and survival with gastrointestinal bleeding are altered by several factors, including (1) associated diseases, (2) availability of blood replacement, (3) the age of the patient, and (4) the site of the bleeding ulcer<sup>4-7</sup>. Severe or fatal bleeds are usually due to duodenal ulcers on the posterior wall or to gastric ulcers on the lesser curvature of the stomach. Allen found mortality to be lower (4%) in younger patients, i.e., under 50 years of age, and higher (33%) among older patients, i.e., over 50 years of age<sup>8</sup>.

3. The severity of the first upper gastrointestinal hemorrhage does not necessarily exceed that of subsequent hemorrhage but more patients die with the first gastrointestinal hemorrhage than subsequent lesions. Roy reported that only 4 percent of his patients died with their first bleed<sup>9</sup>. In contrast, Palmer found that 74 percent of his patients who died, did so as result of their first upper gastrointestinal hemorrhage (varices included). Death usually comes to patients with bleeding ulcers an average of 13.5 days after the onset of bleeding<sup>10</sup>. In many instances, death results from uremic-like conditions, myocardial infarctions, or other diseases.

4. Elderly people can exsanguinate without an external show of blood.

5. Two types of azotemia may accompany upper gastrointestinal hemorrhage. Alimentary azotemia due to the absorption of blood and secondary azotemia due to functional renal impairment brought on by an accompanying hypotension and/or hypovolemia. Bleeding into the lower bowel does not cause an elevation of circulating urea. In one intubates the stomach and pours blood into the small bowel beyond the Ligament of Trietz, there is no elevation of blood urea level<sup>10</sup>.

6. Ordinarily, the BUN rises 3 days after an upper gastrointestinal hemorrhage<sup>10</sup>. Elevated levels, however, may persist for as long as 7 days. Following an UGH, the BUN may increase to 20-80 mgm %, but it rarely exceeds 35 mgm % in patients with normal kidney

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function. A reliable rule is "alimentary azotemia occurs only if there is a melena."

7. Once ulcer bleeding has been controlled the bleeder can be fed early. This is done for two reasons — the patient may be depleted of electrolytes and these deficiencies are best corrected by oral supplementation. Secondly, normal gastrointestinal peristalsis is a gentler form of muscular activity than the violent hunger contractions observed in starved patients<sup>1</sup>.

8. Once bleeding is stopped and the stomach is cleared of clots, better radiological and endoscopic views can be obtained of the upper gastrointestinal tract. It is impossible to see a gastric or duodenal ulcer in a stomach filled with blood clots or food.

9. The doctor responsible for the patient with upper gastrointestinal bleed serves his patient best by identifying the source of hemorrhage as soon as possible. If facilities and personnel are available, esophagoscopy, gastroscopy, and radiological examinations should be done as soon as possible. Endoscopy permits early diagnosis of bleeding in 90 percent of patients and thereby permits better management.

10. In this respect, the use of cold saline lavage for 20 to 30 minutes not only helps to stop the bleeding but usually tends to clear the stomach sufficiently to allow good endoscopic visualization. Done properly, cold saline lavage stops bleeding in 60-70 percent of patients within a few hours. In others, it slows bleeding enough to permit endoscopy.

To lavage patients, have them lie in the left lateral position. Then, pass a large Ewald (French 36) tube orally into the stomach. Instill iced saline repeatedly and withdraw through a large Tommey bladder evacuator until the lavage returns are clear. Only gentle suction is applied. In most cases, 30 minutes of lavage using three quarts of iced saline is adequate to stop bleeding. Heiman prefers water because he believes salt retention may be an added danger to rapid blood replacement in the elderly, the cirrhotic, the nephrotic, or the chronic cardiac patient.

Do not attempt to lavage the stomach through an ordinary nasogastric tube or a Levine tube. Such tubes are usually responsible for failure of this therapeutic/diagnostic effort because they do not permit effective lavage.

### Ulcer Bleeding

1. Ulcer bleeding may be acute or chronic. If the ulcer develops acutely, as with stress ulcer, bleeding may occur from two sides of the vessel wall because of the acute erosive process at the base of the ulcer. Hemorrhage is more persistent in acute ulcers and spontaneous cessation of bleeding does not occur as readily as it does with chronic ulcer bleeding.

2. Hemorrhage from the chronic ulcers may be less dangerous. Palmer pointed out that if one looks carefully at the base of the chronic ulcer, they will note that the arterial lumen is often free of clot. This occurs because the inflammatory reaction surrounding the ulcer bed leads to an endarteritis obliterans. Hence, a large clot is not necessary to staunch the flow of blood. In

contrast, bleeding from the acute ulcer stops because of arterial spasm.

3. Bleeding may be the initial manifestation of ulcer disease and it can occur without preceeding symptoms or pain. Interestingly, during the hemorrhage, ulcer pain often disappears.

4. Recurrent bleeding: Wenchert et al followed 469 patients for almost 20 years after their initial gastrointestinal hemorrhage. Forty-six percent of his gastric ulcer patients and 53 percent of his duodenal ulcer patients had at least one more bleed<sup>12</sup>. Almost one-third of the patients surviving a duodenal ulcer bleed will have a second hemorrhage within five years.

5. Bleeding from a gastric ulcer is no more dangerous than bleeding from a duodenal ulcer. This point is still debatable. Kozell and Meyer found a mortality rate of 31 percent with bleeding gastric ulcers and 14 percent with bleeding duodenal ulcers<sup>13</sup>. Palmer found a mortality of 4 percent patients with bleeding gastric ulcers and a mortality of 3 percent in his patients with bleeding duodenal ulcers<sup>1</sup>.

6. Bleeding ulcers can perforate and perforated ulcers can bleed.

7. Gastric and duodenal ulcers may co-exist. Dworken et al found duodenal ulcers in 63 of 90 patients with antral ulcers<sup>14</sup>. Johnson claims that duodenal ulcers proceed gastric ulcers in 90 percent of patients<sup>15</sup>. Others claim this occurs in about 30 percent of patients with gastric ulcers<sup>16-19</sup>. Multiple duodenal ulcers may also occur<sup>20</sup>.

8. Chronic ulcers usually have more than one bleeding point. This results from the fact that when a chronic ulcer reaches the arterial bed it does so from both ends.

9. Stress ulcers have also been known to medicine for over a hundred years. Although Cushing reported ulcers in association with cerebral disease in 1932, Rokitsansky first reported this association in 1842<sup>21-2</sup>. Curling published six cases of ulcers secondary to burns in 1842 but this type of ulcer was also described by Swan in 1823<sup>22-23</sup>. Ulcers associated with infections have been known since Dieulafoy's report of ulcer in association with pneumococcal pneumonia in 1894<sup>24</sup>. Since then, stress ulcers have been reported in association with almost every type of infection as well as with all forms of major surgery.

### Esophageal Varices

1. If esophageal varices are suspected, look for peripheral manifestation of chronic liver disease, i.e., spiders, ascites, splenomegaly, gynecomastia, clubbing, testicular atrophy, etc.

2. Beware that patients with known esophageal varices and an upper gastrointestinal bleed are not bleeding from an ulcer or gastritis rather than their varices.

3. Remember that even if the gastrointestinal barium studies fail to demonstrate esophageal varices, this is no guarantee that they are not present. Only about 60 percent of varices are visualized by radiological examination.

4. The radiological absence of varices is not a guarantee that they are not present.

5. Esophagoscopy is a more reliable procedure than a barium swallow for detection of varices (90%). However, if you suspect varices, it is best to get a barium swallow first. Later, esophagoscopy can be done when bleeding has decreased.

6. As with ulcers, variceal bleeding may be the first sign of illness among patients with portal hypertension.

7. Mortality accompanying the first hemorrhage is extraordinarily high. From one-third to one-half patients die as result of their first hemorrhage from esophageal varices<sup>25</sup>. Mortality with the second hemorrhage is just as high.

8. The interval between onset of variceal bleeding and death varies. Among 140 unshunted cirrhotic patients who died from variceal bleeding, 23 died within the first 24 hours of onset; 14 within 24 to 48 hours; 22 expired within 48 to 90 hours; 16 died within 7 days; 24 died after 8 to 14 days; and 12 died 15 to 30 days after onset of hemorrhage<sup>1</sup>.

9. Unfortunately, there are no good criteria that allows one to predict a variceal hemorrhage in cirrhotic patients.

### Gastritis

This entity should be strongly considered in alcoholics or patients who take aspirin frequently. Epigastric distress and burning pain in these patients are often made worse by the ingestion of foods or liquids. This is helpful in trying to separate patients with gastritis from those patients with ulcer.

Gastroscopy is diagnostic for gastritis. However, it should not be done until the return from the nasogastric tube is a light pink color. If large amounts of bright red blood are still returning in the nasogastric tube, it will be impossible to visualize gastritis with any certainty. However, if gastroscopy is delayed too long after bleeding stops, lesions will be missed because of the rapid healing properties of the gastric mucosa. If gastritis is suspected, gastroscopy should be done because an upper GI series is not diagnostic; additionally, barium coats the wall of the stomach and prevents proper visualization.

### Mallory-Weiss Syndrome

This lesion is being recognized more often. It is often a frequently misdiagnosed source of upper GI bleeding. Usually, the mucosal tear associated with this syndrome occurs at the cardioesophageal junction in patients who have been vomiting, coughing excessively, or hiccuping violently. **Endoscopy is the only way to make the diagnosis.** A barium swallow will rarely, if ever, disclose a superficial tear.

### What To Do When Faced With An Acute Upper Gastrointestinal Hemorrhage

The following steps will serve you well in managing any patient with UGH.

**First**, insert a large bore intravenous catheter immediately into the superior vena cava via a peripheral vein for measurement of the central venous pressure.

This is useful in management of all patients but it is especially valuable in the elderly where fluid overloading can result in congestive heart failure. Scalp veins and small gauge needles, i.e., smaller than 18 gauge, are often useless. Nothing can be more frightening than to be confronted with a patient in cardiovascular collapse, due to blood loss, without an accessible vein because of peripheral vasoconstriction.

**Second**, draw blood immediately for type and crossmatch, usually four units, and for prothrombin time, hematocrit, hemoglobin, platelet count, and red blood cell morphology.

**Third**, check the vital signs, i.e., blood pressure, pulse, respirations, in the supine position and after the patient has been sitting upright for two minutes. This test helps to evaluate blood volume depletion. A fall in blood pressure on sitting, either systolic or diastolic, of 20 mm Hg, or a rise in the pulse rate of 20 beats or more per minute, usually indicates a loss of at least 25% of the blood. If the patient is a cirrhotic, it is probably wise to use fresh whole blood from the start.

During the first 12 hours, the presence of orthostatic hypotension is of more clinical use than the hemoglobin level or hematocrit. During hemorrhage, whole blood is being lost. Later, the body responds to this acute blood loss by increasing the plasma volume and eventually there is a fall in hematocrit. But, this reaction does not occur for several hours after the onset of acute bleeding; moreover, it continues to decrease the hematocrit over the next 12 to 24 hours, even in the absence of continued bleeding. To state this another way, — a normal hematocrit is to be expected after a massive acute UGH, but a slowly falling hematocrit over the ensuing 24 hours does not necessarily mean continued bleeding.

**Fourth**, insert a large nasogastric tube. This step is helpful in estimating the severity of blood loss and allows you to start cold-saline lavage. By cooling the mucosa, the lavage opens up submucosal vascular shunts and decreases bleeding from gastric ulcers, duodenal ulcers, gastritis, and sometimes esophagitis.

Leave the tube in place even though bleeding seems to stop and connect it to low Gomco suction. This allows continuous monitoring of the gastric contents and provides early evidence for a rebleed, should it occur. It is also an efficient way to neutralize the gastric contents. The nasogastric tube should be left in place for at least 24 hours after the gastric contents have become clear. When bleeding ceases give antacids every 30 minutes when the patient is awake. Don't awaken a sleeping patient more than once a night to administer medications.

**Fifth**, follow the blood pressure and pulse frequently after the initial evaluation, i.e., every 15 to 30 minutes.

**Sixth**, check for evidence of iron deficiency on the initial blood smear. If a patient has had chronic blood loss over a period of weeks or months, he may have a low hematocrit because of hemodilution. In this case, the blood smear should show hypochromic microcytic red cells. The administration of several units of blood to such a patient could cause fluid overload and perhaps



congestive heart failure. Better therapy in this instance would be the administration of packed red cells.

**Seventh,** sedate the anxious individual but take care not to oversedate. The latter makes it difficult to evaluate their mental status and it increases the risk of aspiration pneumonia.

**Eight,** keep the head of the bed elevated when a nasogastric tube is in place in order to decrease gastroesophageal reflux. This helps to prevent esophagitis surrounding the nasogastric tube. A suspicion that esophageal varices are present is not a contraindication to a nasogastric tube.

**Nine,** check the number and character of the stools. This is helpful in assessing the magnitude of blood loss. Blood in the intestinal tract is an excellent cathartic and a significant bleed frequently leads to loose tarry stools. Older patients are not as sensitive to blood in the intestinal tract as younger patients and this is the group where one will observe the remarkable phenomenon of a mortal exsanguination within the GI tract without external evidence of blood loss. With massive UGH, stools may be plum color or tarry. If the stools decrease in number and become firm, this is a reliable sign that the bleeding is either decreasing or has stopped. Remember that stools may remain melanic for 4 to 7 days after upper gastrointestinal bleeding has ceased.

**Ten,** administer an ampule of calcium gluconate for every five units of blood given to a patient. This is done because the anticoagulants used in stored blood often deplete the calcium normally present.

**Eleven,** once you discontinue nasogastric suction, place the patient on milk and antacids. It is preferable to use magnesium rather than aluminum-containing antacids. The latter frequently cause constipation or obstipation, especially in the presence of blood.

**Twelve,** seek surgical consultation early. The management of acute upper gastrointestinal bleeding is a combined medical-surgical problem. It is best to consult the surgeon early so he can be prepared for emergencies and organize his staff, the operating room, etc.

**Thirteen,** attempt to make a diagnosis as soon as possible, as noted earlier.

**Fourteen,** if a Sengstaken-Blakemore tube is to be used for bleeding varices,

- a. test the tube before inserting it to make certain there are no air leaks;
- b. check the location of the tube after insertion;
- c. make certain the tube is inflated properly after insertion;
- d. check balloon pressures every hour;
- e. no fluids should be given p.o. after balloon insertion;
- f. aspirate secretions repeatedly.

These simple precautions will avoid most of the hazards associated with the Sengstaken-Blakemore tube.

**Fifteen,** get an electrocardiogram on admission and after the second or third day. Many patients infarct with UGH and their symptoms are attributed to UGH.

## Surgery

Many criteria have been used as indications for surgery of the bleeding ulcer patient. Brick has summarized them well.<sup>6</sup>

1. Surgery is indicated if hemorrhage persists after replacement with 8 units of blood.

2. If circulatory instability persists despite repeated transfusions.

3. It is not possible to keep up with the blood loss.

4. If there is rebleeding during the hospital stay.

Others have added the following:

1. Severe ulcer pain;

2. History of recurrent bleeding in the past;

3. Pyloric stenosis;

4. Angina pectoris and transient ischemia attacks are also reasons to consider surgery early.

## Observations After A Massive UGH

Shortly after the emergency has passed there are a number of clinical phenomena of interest to the clinician.

1. As the patient recovers, he may note that his ulcer pain has gone. It may not return for days or weeks.

2. Fever often develops. Usually this appears within 24 hours and it may last for a week with temperature reaching as high as 103 degrees F. Interestingly, fever does not follow the experimental ingestion of blood.

3. Leukocytosis is to be expected.

4. The bilirubin level may rise slightly. One should bear this in mind in patients with suspected liver disease.

5. Suspect the presence of other complications. The two most important complications to be observed after gastrointestinal bleeding are myocardial infarction and acute renal failure. Older patients may have diabetes, chronic nephritis, and chronic cardiac decompensation which are seriously disturbed by the hemorrhage. One observer found myocardial infarction in two percent of individuals with UGH.

6. Finally, remember the best indicators of the patient's condition are his vital signs, **not** his hematocrit.

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## MASA Plans Three Trips For 1977

"MASA will sponsor three great trips in 1977. It has been customary for the president to plan a winter and summer trip, and a ski trip also is planned by a ski enthusiast and sponsored by MASA.

The ski trip to Crested Butte Resort (March 13-19, 1977) unfortunately will conflict with the annual meeting of the Alabama Chapter, American Academy of Family Physicians in Lake Tahoe, March 13-17. Both, however, will be excellent trips.

Our summer trip will be a European Adventure featuring Switzerland, Germany and Austria with departure on July 16 and return on July 29.

Our winter trip is scheduled for October, 1977, on the advice of travel consultants and based on past member participation. It will feature Japan and Hong Kong and there will be side trips offered as options. We hope some or all of these trips will fit into your plans for 1977.

Further details will be forthcoming during the next few weeks through *The Alabama M.D.* and by direct mail to the membership. In the meantime, members are urged to contact MASA Headquarters, P. O. Box 1900-C, Montgomery 36104 (or telephone 1-800-392-5668) to obtain information."

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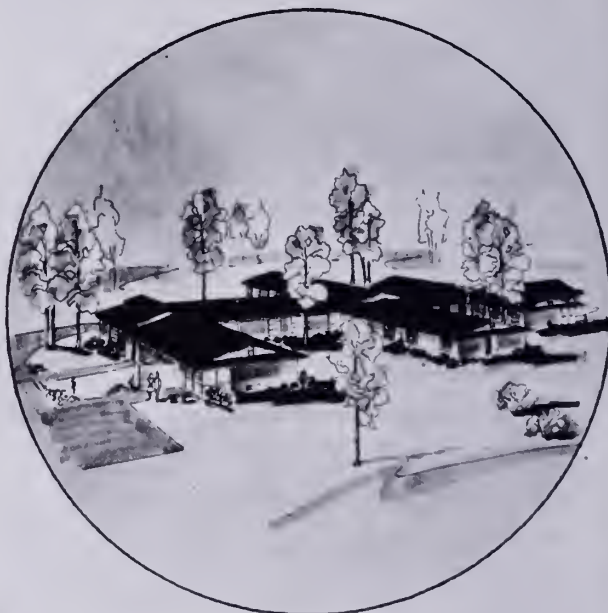
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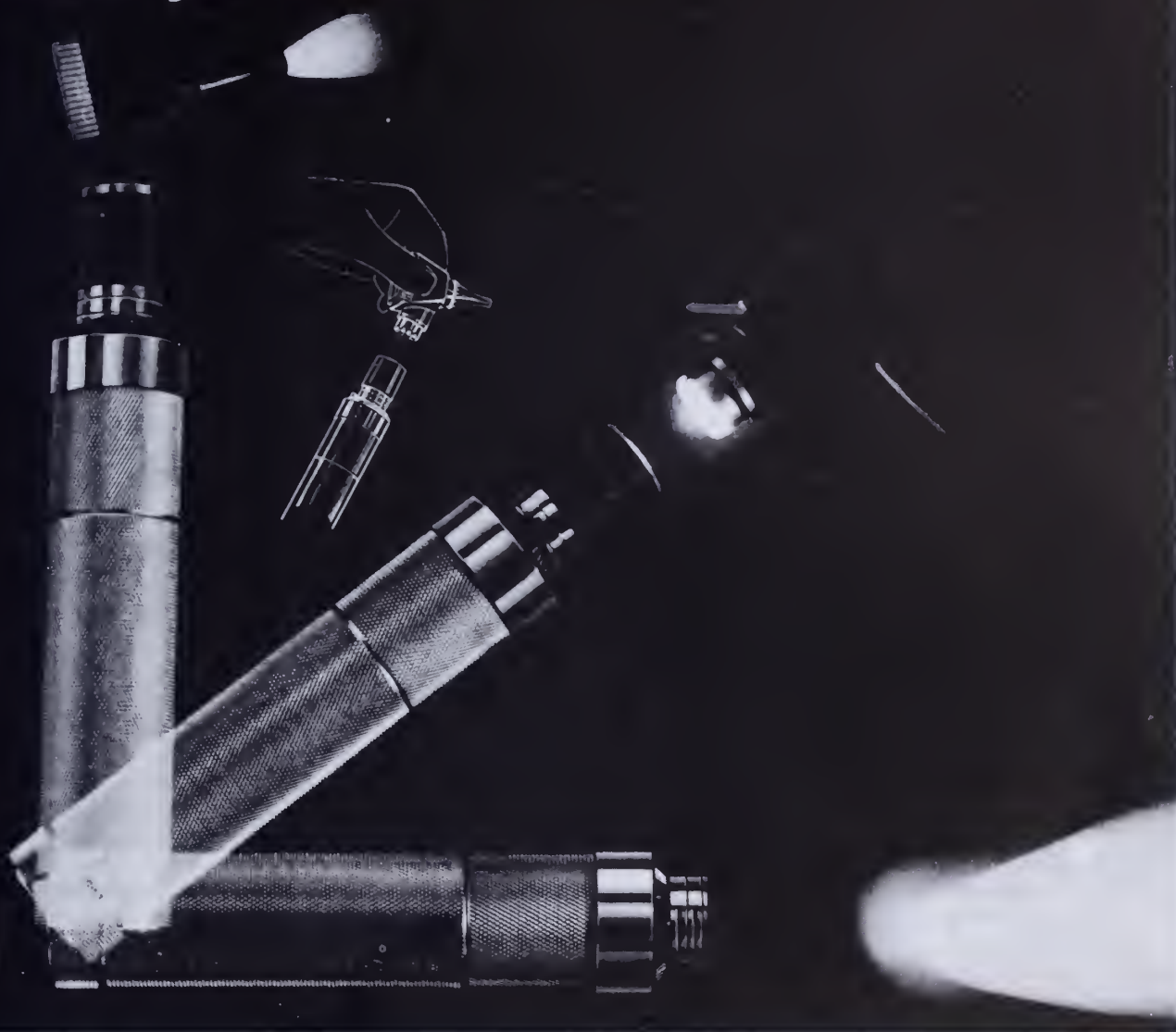
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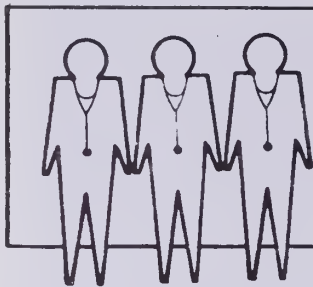
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DEAN'S REPORT:

# How many doctors?

## The Congress Speaks:

The Congress of the United States "finds and declares that—(1) the availability of high quality health care to all Americans is a national goal; (2) the availability of high quality health care is, to a substantial extent, dependent upon—(A) the availability of qualified health professions personnel; and (B) the availability of adequate numbers of physicians engaged in the delivery of primary care .... and in the various specialties, but numbers which do not exceed the need for physicians in such specialties; (3) there are many areas in the United States which are unable to attract adequate numbers of health professions personnel to meet their health care needs; and (4) physician specialization has resulted in inadequate numbers of physicians engaged in the delivery of primary care. The Congress further finds and declares that health professions personnel are a national health resource and the Federal government shares the responsibility of assuring that such qualified personnel are available to meet the health care needs of the American people .... The Congress further finds and declares that there is no longer an insufficient number of physicians and surgeons in the United States."

Thus begins the **Health Professions Educational Assistance Act of 1976**, signed into law by President Ford on October 12, when it became Public Law 94-484. The above opening statement sets the stage for the rest of the 136 page document and for the material gathered in the Senate hearings, published by Mr. Kennedy's Senate Committee in 500 pages of fine print on June 16, 1976<sup>1,2</sup>. Availability of high quality health care to all Americans is the goal; health care personnel are important in meeting this; these people constitute a "national resource;" and it is in part the responsibility of the U. S. Congress to redress imbalances so that all Americans do, in fact, have ready access to high quality health care. Thus, it is declared to be the responsibility of the U. S. Congress to manipulate the health manpower pool (or pools) to meet the health care *NEEDS* of Americans. Note, please, the recurring emphasis on *NEED* as the basis for production and distribution of physicians.

IN THE STARRY-EYED sixties the great push was for more and more and more doctors, such that the projected M.D. output of Alabama has already more than doubled in the last six years and is scheduled to nearly quadruple over the decade (from less than 80/year to more than 300/year). The turning point came with H.R. 57314 of the U. S. House of Representatives in 1974, written by William Roy, M.D., a physician congressman from Kansas, and his aide Brian

Biles, M.D., now on Mr. Kennedy's staff. H.R. 57314 says much the same as P. L. 94-484; there are enough doctors, but they are maldistributed in two respects—geography and specialty. Mr. Roy's bill never became law, nor did its successor last year, Mr. Kennedy's S-3585, which contained similar provisions.

To redress the purported maldistributions in geography P. L. 94-484 uses chiefly the National Health Service Corps, and it is likely that we shall see more of these young physicians in Alabama in the coming few years. Hopefully, we will be hospitable and helpful. They will serve only in Federally designated medically underserved areas, and Alabama has 23 total counties and 15 portions of counties so designated. Alabama also currently ranks 46th in physicians per capita among the states<sup>3</sup>.

The main mechanism for altering specialty distribution is regulation of the proportions of residency positions among the 23 main specialties and the additional subspecialties. One question is who will make such allocations? H.R. 57314 designated the CCME (Coordinating Council on Medical Education) and LCGME (Liaison Committee on Graduate Medical Education) to carry out this task, and that idea is still being promoted by some as "the last chance for voluntarism," after which the Federal government will take over and apportion the residency positions. Thus far the CCME and LCGME have resisted assuming this responsibility, mainly on the grounds that such regulation is ill advised and is likely so prove counter-productive.

## Estimating Needs:

The difficulty is in rationalizing the *NEEDS* and relating them to the functions and numbers of health care personnel. Several estimates of needs for physicians in Alabama have been recently published<sup>4,5,6</sup>, and an extensive assessment of the needs for physicians, specialty by specialty, has been published for Canada<sup>7</sup>. However, two of the most eloquent statements on patients' *NEEDS* for physicians have been published right here in Alabama by Dr. W. D. Israel of Wetlow<sup>8,9</sup>. In one titled "Decisions! Decisions!", Dr. Israel bemoans the fact that people these days "are as interested in receiving every day decisions from their doctor as in receiving medical treatment"<sup>8</sup>. This applies not only to the return-to-work slip, but also to decisions as to when an 8-year-old can return to school, when grandfather should stop driving, how long a person should stay by a dying parent, whether one family member should tell another something, whether to get a divorce, etc. In another titled "Who Really



Needs Me?", he raises the question of *who determines the NEED for primary care*. Sometimes it is obvious to all—a broken arm, bleeding ulcer, severe chest pain. But what about the sore throat, the "no-reaction-but-it-doesn't-look-good" insect bite, and similar worries? He says, "To be candid, the nuisance illnesses (which are terribly real to patients) *NEED* medical care when coronaries and kidney stones are not in season, when an annual physical cancels a twenty minute appointment time, when the patient is a regular 'good' patient, when the patient wears my receptionist down by repeated calls, or when the patient catches me in the parking lot. Surely, these are poor criteria for the patient's *NEED*. Ideally, who is to decide which patient *NEEDS* care today?"

**IT APPEARS** that the U. S. Congress is about to try to answer Dr. Israel's question. However, the *criteria* for determining *NEED* remain vague. Currently the criteria are soft in the extreme and consist mainly of testimonials from "authorities" and comparisons of physician/population ratios between various political entities, such as states or counties. Just how these relate to *health* of those populations is rarely discussed or analyzed in detail. Although P. L. 94-484 refers vaguely to infant mortality, access to health services, and "health status," mainly it just says that Congress "finds and declares."

Further, although the three specialties of family practice, general internal medicine, and general pediatrics are designated as the primary care specialties, and although there have been volumes written about continuity of care, serving as a personal comprehensive physician, whether family physicians should do surgery and how much, etc., there is no generally agreed upon set of *functions* for that specialty or any other, at least not in the detail discussed by Dr. Israel; and not in sufficient detail to settle who should operate on herniated lumbar discs (orthopedic surgeon or neurosurgeon), who should refract patients for eyeglasses (ophthalmologist, ophthalmic assistant, optometrist, or optometric assistant—four choices here), who should counsel patients regarding drug therapy (pharmacist or physician), who should dispense drugs to hospitalized patients at the bedside (pharmacist or nurse), who should give anesthesia for surgery (M.D. anesthesiologist or nurse anesthetist), who should counsel emotionally disturbed patients (psychologist or psychiatrist), which of the "minor" ailments would be covered, etc. That is,

we are a long, long way from settling on the *job descriptions* for each "health care professional."

Even in Great Britain, where there is 30 years' experience in such matters, the role of the general practitioner is not settled. A recent study there surveyed 121 doctors in general practice together with 218 associated staff members in an attempt to determine the *NEED* for general practitioners in Britain<sup>10</sup>. The conclusion is relevant: "More sensitive research into the activities and the effectiveness of primary medical care is needed to illuminate this whole area. This is a time when critical decisions are being taken which will affect the future of the health care system in Britain. Yet surprisingly there is little consensus of opinion as to what practitioners within primary medical care ought to be doing. The result is that, in the present state of knowledge, equally good arguments could be put forward to support the view that there is a drastic shortage of practitioners, or that there are more than enough of them."

"If the concept of primary medical care is extended to encompass much of the 'pastoral' role, at present implicit in a large proportion of practitioners' work, or even some aspect of the 'social work' role, then there is likely to be considerable pressure on resources. Primary medical care is likely to appear chronically short staffed. On the other hand, the central role of primary medical care may be defined in terms of providing that range of intervention (within the capacity of a family doctor) which has a high probability of being effective in modifying clinically definable disease processes. If this is nearer to the model of primary medical care that ought to be encouraged, then the implication of fundamental importance is that it is not more family doctors in total that are needed, but more family doctors of the highest calibre. .... It is becoming increasingly evident that the interested parties, the NHS, the health professions and the consumers, must determine what priority should be given to each of the possible roles that primary medical care might perform, rather than leave practices and practitioners to follow their own individual inclinations with virtually no guidelines or yardsticks and no job specifications at all."

An excellent and fascinating study published 43 years ago by Lee and Jones relates physicians needed per 100,000 population to the epidemiology of the diseases in that population<sup>11</sup>. A table from Lee and Jones' study shows the thrust of their planning (*table on p. 51*).

**THE ESSENTIALS** for a fully rationalized plan for numbers and distribution of health manpower would therefore include the following four steps: (1) epidemiologic studies to obtain data on disease prevalence in the population to be served and determinations of the medical and preventive care required for these; i.e., an accurate quantitative description of the jobs to be done, which might be called the *service needs*; (2) job descriptions for all the "health care professionals" who would provide the care; i.e., *role definitions* or professional functional goals; (3) calculations of the numbers of each type of health care professional needed; i.e.,

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CONTINUED ON PAGE 50



## Physicians' placement service in Alabama

*The Medical Association of the State of Alabama maintains the Physicians' Placement as a service to the medical profession in the state of Alabama. Opportunities for practice in Alabama will be published and will be distributed to physicians making inquiry. Physicians wishing to establish practice are invited to submit a resume to be kept on file with the Association. For further information write to: Mr. Emmett Wyatt, Executive Assistant, Medical Association of the State of Alabama, P. O. -Box 1900-C, Montgomery, Alabama 36104, or Telephone 263-6441.*

### LOCATIONS WANTED

*(Physicians interested in locating in Alabama)*

**Dermatology:** Age 27; University of Alabama, 1974; seeking practice in town of 30,000 plus population. Available July 1978. LW-001.

**General Practice:** Age 34; University of Alabama, 1975; seeking practice in northern or central Alabama in town of 50,000 or more population. Available April 1978. LW-002.

**Family Practice:** Age 29, University of Kentucky 1972; National Board Certified; American Board Eligible; seeking Single Specialty Group, Partnership, or Multi-specialty Group. Available August 1977. LW 05532.

**Internal Medicine:** Age 34, University of Alabama 1968; National Board Certified; American Board Certified; seeking Solo, Single specialty group, or Multi-specialty group. Available April 1977. LW 02108.

**Obstetrics & Gynecology:** Age 31, University of Tennessee 1970; Will be American Board Eligible 1977; seeking Single specialty group, Partnership, or Multi-specialty group. Available July 1977. LW 05782.

**Obstetrics & Gynecology:** Age 29; Meharry Medical College, 1973; seeking group practice in city of 300,000-500,000 population. Available July-August 1977. LW-03

**Ophthalmology:** Age 31; University of Illinois 1971; National Board Certified; American Board Eligible; seeking Partnership, Single specialty group, or Multi-specialty group. Available July 1977. LW-05889.

**Surgery:** Age 33, University of Maryland 1969; National Board Certified; Will be American Board Eligible 1977; seeking Research, Institutional, or Single specialty group. Available July 1977. LW-05587.

**Cardiovascular and Thoracic Surgeon:** Age 35, University trained, experienced in open heart, vascular and pulmonary surgery and now in group practice. Wishes to relocate in private practice. LW-20.

**Surgery/General Practice:** Age 31; University of Florida 1971; Will be American Board Eligible 1976; seeking partnership, single specialty group or multi-specialty group. Available July 1977. LW-01589.

**Orthopedic Surgery:** Age 28; Emory University 1973; American Board Certified; seeking Single Specialty Group. Available July 1977. LW 15.

**Urology:** Age 31, University of Mississippi 1970; American Board Eligible; seeking Single Specialty Group. Available July 1977. LW 17.

**Sophomore Medical Student** — age 22, interested in a town or hospital assisting with medical school costs in return for service there in general/family practice. Available 1980. LW-01.

### PHYSICIANS WANTED

*(Opportunities For Practice)*

**Internist & Family Physician** — Opportunity available for an Internist and a Family Physician in a community ten miles north of Mobile. Excellent growth potential. Financial assistance available. Abundant outdoor activities (30 miles from gulf). PW-15.

A community with combined population of 10,000 located near Mobile, Alabama is seeking a **general practitioner**. Office space available with living quarters. Several churches and schools. PW-9

**General Practitioner's** 2 family physicians wanted for general practice in a 64-bed hospital, located between 2 North Alabama towns (in the heart of the Tennessee Valley) with a trade population of 18,000. Office space available. Within 35 miles of large city. Large amount of industrial work in our area. PW-7

**WANTED—General Internist** or Subspecialist with interest in general medicine. University town, population approximately 60,000, to join 4 other internists in a multi-specialty clinic setting; 250-bed expanding general hospital; all-specialty coverage, office expansion in progress; attractive living area. PW-11

Opportunity for **General Practitioner** in town of 4,000 population; trade area 30,000 population located in south-east Alabama within short distance of hospitals. One g.p. and two dentists presently in the town. Agricultural and industrial area. PW-3.

Opportunity for **General Practitioner** in town of 3,000 population; trade area 16,000 population located in south-east Alabama, within short distance of city of 35,000 population where there are two hospitals. Located 85 miles from Gulf Coast beaches. Office space and equipment available. Last physician in town died two years ago. Industrial and farming area. Churches, schools and recreational activities. PW-2.

**GENERAL PRACTITIONER** needed in progressive rural community of about 1,000 people with trade area of 20,000, for 36 bed, joint commission approved hospital. Located in East Central Alabama, within 90 miles of Atlanta, 100 miles of Montgomery and Birmingham, and within 20 minutes of I-20. Guaranteed office space with rent to be worked out. Interested parties and their families are invited to visit with expenses paid. PW-13



**General Practitioner—Opportunity** in central Alabama town of 5,000 population, with a trade area of 30,000 population. Located 30 miles east of Montgomery, Alabama, and 28 miles west of Auburn University. Adjacent to Lake Martin. A new 77-bed hospital with a new Medical Arts Complex adjoining with office space available. Guaranteed income for a General Practitioner or Family Physician. PW-4.

**2 GENERAL PRACTITIONERS** wanted to locate in Central Alabama town with 17,000 population and a trade area of 35,000 population. Good 68 bed hospital, located near large city with specialty consultants available. Excellent fishing, camping, hunting, golf and schools. Excellent location to raise a family and practice medicine. Healthy stable economy. On call days only, nights and weekends covered. Office suites available rent free for the first 12 months, also other financial assistance available; including moving expenses, also interested parties can be offered invitations to visit with expenses paid. PW-11.

**Emergency Dept. Physicians — Full Time Physicians** needed to staff busy Emergency Department at 486 bed hospital in North Alabama. Compensation is hourly and averages \$50,000 per year for 42-45 hour week. Additional fringe benefits include: 3 weeks vacation, 2 weeks sick leave, 2 weeks educational leave and free malpractice insurance. Excellent multi-specialty back-up available and affiliation with medical school. PW-6

**General Practitioner Wanted—Town** of 6,000 population, trade area of 11,000 population, located in East Central Alabama. Hospital located 10 miles away. Metropolitan center located 35 miles distance. Office space located in Clinic building owned by the City, available for lease, or lease purchase. Attractive housing available. One physician in the town. Industrial area. Sixteen churches. 4 schools. Social activities include golf course, country clubs, tennis courts. PW-7

**Wanted—Family Physicians, Internist, Pediatricians, Ob-Gyn's, Pathologist, & other Physicians.** Southwest Alabama town close to Pensacola, Florida and Mobile, Alabama. Excellent growth potential; All recreational opportunities; Stable economy; JCAH Hospital with definite growth plans; 13,000 population; trade area 40,000. PW-5. ■



"CHEER UP REVEREND. WE'LL HAVE YOU UP AND BACK ON YOUR KNEES AGAIN IN NO TIME."



### Baptist Medical Centers

#### To Add New Riverchase Complex

The Birmingham Baptist Medical Centers have announced plans to construct an ultra-modern health care complex in the center of Alabama's population growth area—the town of Riverchase, in North Shelby County. (see photo)

Application for permission to build the 144-bed, \$12.7 million facility has been made to the Alabama Bureau of Health Development. The complex will include a hospital with 132 private rooms and 12 intensive care beds, a primary care group practice facility and other physician office space.

BMC-Riverchase will be a community hospital offering a full range of basic medical and surgical services, but would not attempt to offer a wide range of expensive and poorly utilized services. The hospital complex will offer intensive care, an emergency department, surgery facilities and services such as X-ray, physical therapy and others. ■

### Three Birmingham Hospitals Begin PSRO Review

Professional Standards Review Organization (PSRO) has been initiated in three Birmingham hospitals: Lloyd Noland, St. Vincent's and University.

Physician review committees in each of the three hospitals will review the medical necessity and appropriateness of care provided to Medicare, Medicaid, Maternal and Child Health beneficiaries receiving treatment in the institutions.

During the first year of operation, Alabama Medical Review, Inc., the agency charged with coordinating and monitoring PSRO for Alabama, hopes to delegate review activity into an additional 55 hospitals in the state. ■

## New physicians licensed to practice in Alabama



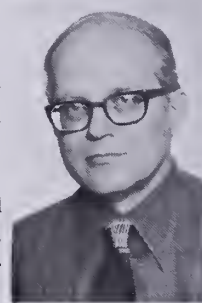
**Brown, Thomas Larry, M.D.**, Bowman Gray School of Medicine, 1967. Reciprocity with North Carolina. Specialty: Nuclear Medicine, Radiology & Pediatric Radiology. Location: Fairhope.



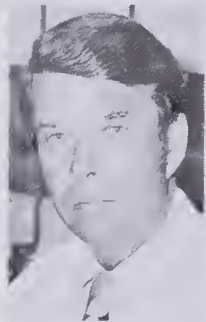
**Cohen, Stanley Bruce, M.D.**, University of Alabama School of Medicine, 1975. Reciprocity with National Board of Medical Examiners. Location: Birmingham.



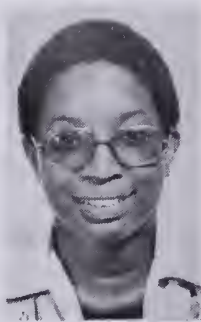
**Eagar, Ronald McRee, M.D.**, University of Alabama School of Medicine, 1972. Reciprocity with Mississippi (FLEX). Specialty: Pediatrics. Location: Tuscaloosa.



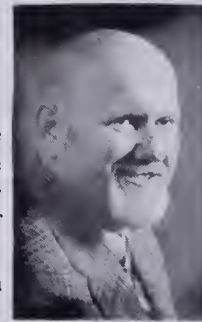
**Elliott, Larry Paul, M.D.**, University of Tennessee College of Medicine, 1957. Reciprocity with Mississippi. Specialty: Diagnostic Radiology, Cardiac Pathology & Pediatric Cardiology. Location: Birmingham.



**Cabaniss, Carroll Daniel, M.D.**, Medical College of Georgia, 1955. Reciprocity with Georgia. Specialty: Cardiology & Internal Medicine.



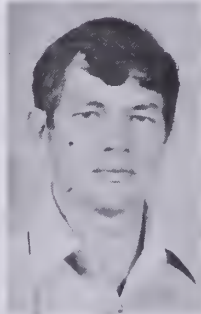
**Coleman, Janice Lark, M.D.**, State University of New York School of Medicine, 1974. Reciprocity with Georgia (FLEX).



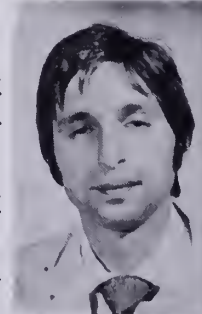
**Gloor, Robert Franklin, M.D.**, Loma Linda University College of Medicine, 1954. Reciprocity with California. Specialty: General Preventive Medicine. Location: Tuscaloosa.



**Cargile, Kenneth Roland, M.D.**, University of Mississippi School of Medicine, 1974. Reciprocity with Mississippi (FLEX).



**Collier, Craig Brian, M.D.**, University of Alabama School of Medicine, 1975. Reciprocity with National Board of Medical Examiners. Location: Ft. Rucker.



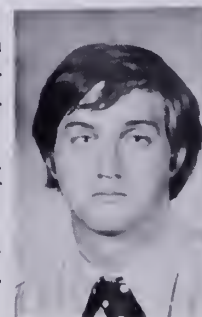
**Goldstein, Harvey Allen, M.D.**, University of Bologna Faculty of Medicine (Italy), 1971. Reciprocity with Maine (FLEX). Specialty: Otolaryngology. Location: Birmingham.



**Coghlan, Harold Cecil, M.D.**, Faculty of Medicine, University of Chile (Santiago), 1956, State Board Examination. Specialty: Internal Medicine. Location: Birmingham.



**Dinerman, William Steven, M.D.**, Temple University Medical School, 1971. Reciprocity with National Board of Medical Examiners. Specialty: Otorhinolaryngology. Location: Maxwell AFB.



**Hall, Frank Avery, M.D.**, George Washington University School of Medicine, 1974. Reciprocity with National Board of Medical Examiners.





**Head, George Bruce, III, M.D.,** Medical College of Georgia, 1970. Reciprocity with Georgia. Specialty: Cardiology & Internal Medicine. Location: Birmingham.



**Langley, William John, M.D.,** University of Virginia School of Medicine, 1975. Reciprocity with National Board of Medical Examiners. Location: Birmingham.



**Streicher, Robert E., M.D.,** SUNY Downstate Medical Center (New York), 1956. Reciprocity with National Board of Medical Examiners. Specialty: Plastic Surgery. Location: Birmingham.



**Hemstreet, Mary Pat Babiarz, M.D.,** Temple University School of Medicine, 1968. Reciprocity with National Board of Medical Examiners. Specialty: Pediatric Allergy. Location: Birmingham.



**Smith, Frances Lester, M.D.,** University of Alabama School of Medicine, 1974. Reciprocity with National Board of Medical Examiners. Location: Birmingham.



**Terrell, Ernest Buford, M.D.,** Howard University College of Medicine (Washington, D. C.), 1974. State Board Examination. Location: Macon County.



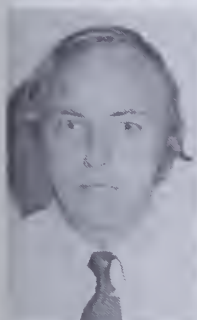
**Hochreiter, George Carl, D. O.,** Philadelphia College of Osteopathic Medicine, 1975. Reciprocity with National Board of Examiners for Osteopathic Phy. Location: Ft. Rucker.



**Snoddy, William Ray, M.D.,** University of Alabama School of Medicine, 1975. Reciprocity with National Board of Medical Examiners. Location: Mobile.



**Van Marter, Neal Dahl, M.D.,** University of Pittsburgh School of Medicine, 1954. Reciprocity with Pennsylvania. Location: Anniston.



**Howard, Edward Keith, M.D.,** University of Vermont College of Medicine, 1961. Reciprocity with National Board of Medical Examiners. Specialty: General Surgery.



**Spoonhour, Thomas Duane, M.D.,** University of Nebraska College of Medicine, 1973. Reciprocity with National Board of Medical Examiners. Specialty: Anesthesiology. Location: Tuscaloosa.



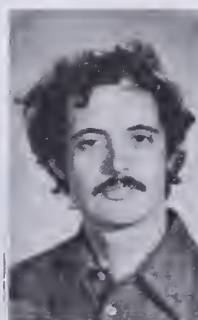
**Vanichanan, Jaranan, M.D.,** Siriraj Hospital Mahidol University (Thailand), 1963. Reciprocity with New York (FLEX). Specialty: Otolaryngology. Location: Birmingham.



**Khouri, Emile Victor, M.D.,** Boston University School of Medicine, 1957. Reciprocity with National Board of Medical Examiners. Specialty: Surgery. Location: Decatur-Hartselle.



**Stahlkuppe, Robert Frank, M.D.,** Medical College of Georgia, 1974. Reciprocity with Georgia (FLEX).



**Varner, James William, M.D.,** University of Alabama School of Medicine, 1974. Reciprocity with National Board of Medical Examiners. Location: Birmingham.

## AROUND THE STATE



**Vinson, Thomas Lynn, M.D.**, University of Mississippi School of Medicine, 1975. Reciprocity with Mississippi (FLEX). Location: Mobile.



**Whitaker, Robert Roy, M.D.**, University of Illinois Medical Center, 1972. Reciprocity with National Board of Medical Examiners. Specialty: Ophthalmology. Location: Ft. Rucker.



**Williams, Tony Lee, M.D.**, University of Alabama School of Medicine, 1975. Reciprocity with National Board of Medical Examiners. Location: Huntsville.



**Walker, James Lee, M.D.**, University of Louisville School of Medicine, 1975. Reciprocity with National Board of Medical Examiners. Location: Mobile.



**White, Joe Michael, M.D.**, University of Texas Health Science Center (San Antonio), 1975. Reciprocity with National Board of Medical Examiners. Location: Huntsville.



**Wood, Ellen Glenn, M.D.**, University of Alabama School of Medicine, 1975. Reciprocity with National Board of Medical Examiners. Location: Birmingham.



**Wallace, Warren Lee, M.D.**, California Medical College, 1972. Reciprocity with California.



**Williams, Bruce Roger, M.D.**, University of Alabama School of Medicine, 1974. Reciprocity with National Board of Medical Examiners. Location: Birmingham.



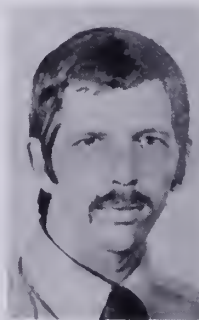
**Yeager, Charles Franklin, M.D.**, University of Alabama School of Medicine, 1974. Reciprocity with National Board of Medical Examiners. Location: Ft. Rucker.



**Warnock, Ralph Parks, M.D.**, Medical College of Georgia, 1974. Reciprocity with National Board of Medical Examiners.



**Williams, James Bertram, Jr., M.D.**, Baylor College of Medicine, 1975. Reciprocity with Texas. Location: Birmingham.



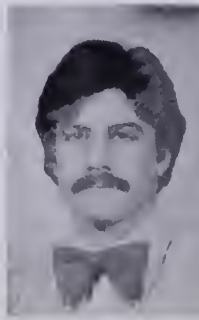
**Young, David Bruce, M.D.**, LSU School of Medicine, 1975. Reciprocity with Louisiana (FLEX). Location: Tuscaloosa.



**Warden, Howell Anderson, III, M.D.**, Medical College of Georgia, 1974. Reciprocity with National Board of Medical Examiners.



**Williams, Sarah Darden, M.D.**, University of Alabama School of Medicine, 1974. Reciprocity with National Board of Medical Examiners. Location: Birmingham.



**Zarbour, Robert Joseph, M.D.**, University of Florida College of Medicine, 1975. Reciprocity with National Board of Medical Examiners. Location: Mobile.





Larose, James Harper, M.D., Tulane University Medical School, 1963. Reciprocity with Louisiana. Specialty: Nuclear Medicine & Diagnostic Radiology. Location: Birmingham.



Paul, Anthony Joseph, M.D., University of Bologna Faculty of Medicine (Italy), 1966. Reciprocity with New York. Specialty: Ophthalmology. Location: Mobile.



McGee, Theodore Jackson, Jr., M.D., Duke University School of Medicine, 1948. Reciprocity with National Board of Medical Examiners. Specialty: General Surgery. Location: Seale, Ala.



Pineda, Thomas Quiambao, Jr., M.D., Manila Central University College of Medicine, 1965. Reciprocity with Kentucky (FLEX). Specialty: Surgery. Location: Ft. Payne (Restricted to DeKalb County).



Moody, Thomas Edwin, M.D., University of Alabama School of Medicine, 1973. Reciprocity with National Board of Medical Examiners.



Rutledge, Guy Leslie, III, M.D., University of Alabama School of Medicine, 1975. Reciprocity with National Board of Medical Examiners.



Nepomuceno, Cecilio Santos, M.D., Faculty of Medicine, University Santo Tomas (Manila), 1962. Reciprocity: FLEX Examination. Specialty: Rehabilitation & Physical Medicine. Location: Birmingham.



Schubert, Robert Charles, M.D., University of Minnesota Medical School, 1971. Reciprocity with Minnesota. Specialty: Diagnostic Radiology. Location: Ft. McClellan.



Pava, Bruce Myles, M.D., University of Illinois Medical Center, 1973. Reciprocity with National Board of Medical Examiners. Specialty: Internal Medicine. Location: Birmingham.



Sullivan, Mary Barbara, M.D., University of Tennessee Center for Health Sciences, 1974. Reciprocity with Tennessee (FLEX). Location: Huntsville.



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a little  
go  
a long  
way.**

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**Red Cross.  
The Good  
Neighbor.**

A Public Service of This Magazine  
& The Advertising Council



# Digest of actions—State Committee of Public Health

*The State Committee of Public Health, at its meeting on November 17, 1976, took the following actions:*

- Received report on influenza immunization program: Over a million doses have been distributed for use within the State through County Health Departments to clinics and physicians; an estimated 575,000 immunizations have been achieved to date, or approximately 26% of the eligible population. Received report from the Public Health Service outlining an immunization effort for children between the ages of 3 and 18 years of age. The vaccine will be administered in two doses four weeks apart and a recommendation that individuals between 18 and 24 years of age should receive a booster dose.
- Approved recommendations of the Licensure Advisory Board recommending revocation of a laboratory license and the issuance of probational, temporary and regular licenses to health facilities in accord with their inspection status.
- Approved Interim Guidelines for End-Stage Renal Disease.
- Officially designated the Statewide Health Coordinating Council as the Advisory Council for the Section 1122 Program and designated the Project Review Committee of the Hospital Construction Advisory Council to continue as the Project Review Council for 1122 until a replacement group is designated.
- Adopted Public Hearing and Fair Hearing Procedures for 1122 purposes.
- Approved Schedule of Procedures for FY 1977 Medical Facilities Plan to serve as Health Care Facilities Review Criteria until the FY 1978 State and HSA Medical Facilities Plans can be developed and approved.
- Advised on the appointment of Dr. A. Lamar Miller, Dothan, to fill the unexpired term of Dr. George E. Hardy on the Council on Health Costs, Administration and Organization.
- Approved two Medicaid Plan Amendments dealing with cost containment.
- Authorized release of audit information on nursing homes prepared by Ernst and Ernst and audits from MSA to the Medicaid Legislative Committee, chaired by Rep. Leigh Pegues.
- Requested professional expertise from physicians to assist in site audits of the professional services for special legislative audits.
- Approved format for letters to physicians alleged to having abused the Medicaid program.
- Placed limit of 50 basic allowance visits for Home Health Care with special authority and restrictions for additional visits which would require prior authorization and in no event exceed 150 per year.
- Approved stringent cost containment measures to bring the Medicaid budget within the approved State funds which affected all providers. This includes: a decrease in the ceiling of nursing facilities to the mean average; lowering the authorized inpatient days in hospitals to 15 with stringent preauthorized extensions not to exceed 15 days; cut all professional providers 7%; eliminated proposed increases for pharmacies and drugs in addition to the new Maximum Allowable Cost

provisions already imposed; restricted administrative costs of MSA. The effective date of these changes is December 1, 1976.

- Was advised that in the Medicaid suit against the Department pertaining to the implementation of Acts 626, 631 and 641 of the 1976 Regular Session, a Restraining Order was issued to the end of the next legislative session.
- Received a new Vital Events Report for the year 1975 for planning and reference purposes.
- Welcomed Dr. Joyce Gendzwill, the new Deputy Director of County Health Services. ■

# Digest of actions of the State Board of Censors

*The State Board of Censors, at its regular meeting on November 17, 1976, took the following actions:*

- Approved the financial statement for the period ending October 31, 1976, which shows receipts in the amount of \$21,026.41 and disbursements in the amount of \$57,307.66.
- Approved renewal of a sustaining membership in the American Medical Student Association.
- In response to the Subcommittee's consideration of a written request from James A. Pittman, Jr., M.D., approved sponsorship of one medical student from UAB and one medical student from USA to attend the AMA Clinical Convention in Philadelphia.
- Approved membership for Mr. Lon Conner in the American Association of Medical Society Executives.
- Concurred in Dr. Wright's action to give the employees of MASA two days, Thursday and Friday, for Thanksgiving and instructed Mr. Conner to submit a policy recommendation regarding future Thanksgiving Holidays to the Board for consideration.
- Accepted letter of request from Julius N. Hicks, M.D., to withdraw his name from nomination to the AMA Council on Medical Service.
- Received a presentation by representatives of Luckie and Forney, Inc., regarding a proposal for a statewide public relations campaign. Instructed that the proposal be held pending an opinion from Dr. Smith and Mr. Conner on the financial feasibility for such a campaign and that they report to the Board at the December meeting.
- Adopted the revised "MASA Guide for Releasing Information to the News Media" with modification and editorial changes.
- Instructed Mr. Conner and Dr. Wright to investigate a proper avenue to inform members of the Peer Review Committees regarding the responsibility function of the Peer Review Committee system.
- Received as information the Report of the Legislative Affairs Department.
- Received as information an updated report on the Continental Disability Program.
- Received as information a report that the CNA In-Hospital Money Plan will again be presented to the Council on Socio-Economics for re-consideration of the entire program.



## Auxiliary

Mrs. George F. Scofield  
President



ONE OF the benefits of belonging to a national organization is the excellent leadership training offered to its members. Your state auxiliary president and five county presidents-elect participated in the 1976 AMA Auxiliary Leadership Confluence which was held at the Drake Hotel in Chicago on October 10-13. This was entitled "Tall Oaks From Little Acorns Grow."

Dr. Richard E. Palmer, AMA President, addressed the whole confluence at a dinner and asked the help of the Auxiliary in joining AMA's cry of protest against the

- Received as information the actions taken at the Council on Medical Education meeting of October 24, 1976, and took the following action on specific items:
- Instructed that an invitation be extended through Dr. Stamler and Mr. John Bloomer to the Minister of Health of Guatemala to be MASA's guest at the 1977 Annual Session and if appropriate, modify to give him some place on the program for a brief talk, provided expenses can be arranged with The Birmingham News and the Partners of the Americas.
- In regard to the guidelines submitted by the Council regarding the employment of a Director of Education, instructed that the person be experienced in the field of education and not necessarily health education as specified by the Council.
- Directed the Council on Medical Education and Mr. Conner to study the feasibility of Tel-Med being made available by MASA on a statewide basis and report to the Board at the December meeting.
- Accepted Resolution of Appreciation commending Mr. Emmett Wyatt and his staff for their work in absence of a Director of Continuing Medical Education.
- Received the report that the scheduling of Congressional District Caucuses must be arranged in compliance with the Constitution and Bylaws for matters to be considered by the College of Counsellors and House of Delegates at the 1977 Annual Session.
- Received as information a copy of the format for the Prospectus for Exhibitors for the 1977 Annual Session.
- Authorized Dr. L. C. Hamrick to attend the AMA Convention in Dr. Hamrick's place (Alternate Delegate), who will be unable to attend.
- Authorized the upcoming District Caucuses to nominate one physician from each District to form an Ad Hoc Advisory Committee to serve with the Mutual Assurance Society's Board of Directors in order to facilitate a smooth transition for replacement of Board members. ■

## VIOLENCE ON TV: IMPACT ON CHILDREN

violent content of television programming for children. He told us that by high school graduation, the teenage American child will have watched some 15,000 hours of television, while having attended only 11,000 hours of classes. He will have witnessed 18,000 acts of violence during that time. The AMA feels that this viewing of violence is a risk factor threatening the health and welfare of young Americans and even of our future society.

The AMA Board of Trustees in May appointed a committee to evaluate research on this problem and the AMA plans to publish a booklet for doctors to distribute to their patients, emphasizing parental responsibility for childrens viewing and also has made plans to confer with the industry.

THE IMPORTANT THING to remember is that the video industry's raison d'être is not to deliver a program to an audience but to deliver a market to an advertiser. Letters of protest should be written to advertisers sponsoring a high level of violence as well as letters commending those whose shows carry a low level of violence. A list of advertisers ranked according to the amount of violence they sponsored in prime time is available from the National Citizens Committee for Broadcasting, 1028 Connecticut Avenue N.W., Washington, D. C. 20036.

Another means of speaking out is to participate in any surveys or rating questionnaires that come your way. Make your own survey of violence and report it. This is certainly trouble and takes much time but in a survey such as the Nielsen one a single voice represents two million viewers. Here are the network addresses:

ABC: Leonard H. Goldensen, Chm., 1330 Avenue of the Americans, New York, New York 10019.

CBS: William S. Paley, Chm., 51 West 52nd Street, New York, New York 10019.

NBC: Julian Gordon, Chm., 30 Rockefeller Plaza, New York, New York 10020.

Of course, on each television set there is an "off" button to press and each family is responsible for what is seen within the home, but there is no way to preview each program before it comes to us. Our moral responsibility as citizens and especially as guardians of the health of others extends past our own doors. We, as physicians and wives, must protest and oppose this health hazard to our youth. Television should not be a college of criminal instruction with courses on how to commit arson, burglary, rape, murder and other acts of depravity.

It was Abraham Lincoln who said "To sin by silence when they should protest makes cowards of men." Let us speak out! ■

Pres.—Mrs. George F. Scofield/Pres.-Elect—Mrs. John S. Taylor/First Vice-Pres.—Mrs. Aubrey Terry/NE Vice-Pres.—Mrs. Eugene H. Bradley/SE Vice-Pres.—Mrs. Rufus Lee/SW Vice Pres.—Mrs. William P. Basoon/NW Vice-Pres.—Mrs. Wilfred Yeargan/AMASA Editor—Mrs. William Smith.

# Roster supplement

CONTINUED FROM PAGE 41

bile to 1408 Springhill Ave., Mobile 36604.

LONG, Franklin H., present Mobile to 1720 Center St., No. 101, Mobile 36604.

## MONTGOMERY COUNTY

TRAWICK, Z. T., present Montgomery to 2025 Normandie Drive, Montgomery 36111.

## MORGAN COUNTY

BURTON, Charles T., present Decatur to 1205 Medical Drive, S. E., Decatur 35601.

## PIKE COUNTY

KOORS, John E., Jr., present Enterprise to 318 Woodland Circle, Troy 36081.

OGBURN, Charles L., Jr., present Ft. Rucker to 1005 Oaklawn Drive, Vestavia Hill, Birmingham 35216.

## RANDOLPH COUNTY

MITSUOKA, Hiroshi, present Roanoke to 38415 North Lane, Apt. D109, Willoughby, Ohio 4094.

## WALKER COUNTY

CAMP, Nathan T., present Jasper to P. O. Box 1565, Jasper 35501.

HUDSON, Alcus R., present Jasper to P. O. Box 1565, Jasper 35501.

## new phone numbers

ALLAIN, B. W.

Tuscaloosa ..... 758-9001

BAKER, L. V.

Jefferson ..... 254-6000

BELYEU, J. M.

Tuscaloosa ..... 758-9001

BENTON, J. T.

Jefferson ..... 254-6000

BERRYMAN, R. L.

Jefferson ..... 879-9264

BRONSTEIN, A. C.

Tuscaloosa ..... 758-9001

CARMICHAEL, B. S. M.

Jefferson ..... 934-4107

CREWS, E. L., III

Jefferson ..... 934-5151

DEPOYSTER, J. II.

Morgan ..... 355-7243

DISMUKES, K. A.

Tuscaloosa ..... 758-9001

DODD, T. A.

Tuscaloosa ..... 758-9001

EDWARDS, R. H.

Jefferson ..... 933-8221

EMBRY, J. II.

Jefferson ..... 933-8221

FRITZ, H. J., Jr.

Tuscaloosa ..... 758-9001

GARDNER, R. L.

Tuscaloosa ..... 758-9001

GOBER, J. R.

Tuscaloosa ..... 758-9001

HAMMACK, W. J.

Jefferson ..... 328-0195

HATCH, K. D.

Jefferson ..... 934-2724

HEGGIE, G. D.

Bibb ..... 926-4624

HEMSTREET, G. P.

Jefferson ..... 934-4932

HORTON, R. E.

Tuscaloosa ..... 758-9001

HULLETT, S.

Tuscaloosa ..... 758-9001

INGRAM, R. L.

Tuscaloosa ..... 758-9001

KATHOLI, R. E.

Jefferson ..... 934-4621

KELLER, J. A.

Tuscaloosa ..... 758-9001

KNIGHT, N. A.

Tuscaloosa ..... 758-9001

MARTIN, R. V.

Tuscaloosa ..... 758-9001

MATIS, R. E.

Tuscaloosa ..... 758-9001

MAY, S. T., III

Montgomery ..... 28-1950

MAY, R. E.

Jefferson ..... 254-6000

McCORMICK, L. H.

Tuscaloosa ..... 758-9001

McELVEIN, R. B.

Jefferson ..... 934-2302

NOLIN, W. B.

Tuscaloosa ..... 758-9001

OVERTON, J. H.

Marion ..... 487-3287

OWENS, D.

Tuscaloosa ..... 758-9001

PARGHI, A. H.

Marion ..... 487-6411

PERKINS, R. B., Jr.

Pickens ..... 364-718

PETERS, M. W.

Tuscaloosa ..... 758-9001

PRATHER, J. W.

Jefferson ..... 254-6104

RAFF, S. B.

Tuscaloosa ..... 758-9001

RUTNER, A. C.

Tuscaloosa ..... 758-9001

SEGALL, P. H.

Jefferson ..... 934-3411

SEIGAL, R. K.

Marion ..... 487-3284

SIMMONS, C. T., II

Tuscaloosa ..... 758-9001

SHANNON, W. K.

Tuscaloosa ..... 758-9001

SONDEREGGER, C. B.

Tuscaloosa ..... 758-9001

STETLER, W. R.

Jefferson ..... 933-2640

STICKNEY, S. B.

Montgomery ..... 834-2745

STONE, H. A., II

Tuscaloosa ..... 758-9001

SULLIVAN, J. B., Jr.

Tuscaloosa ..... 758-9001

SULLIVAN, S. W., Jr.

Jefferson ..... 933-1820

SULLIVAN, W. L.

Tuscaloosa ..... 758-9001

TAYLOR, H. T., III

Tuscaloosa ..... 758-9001

THARP, R. P., II

Jefferson ..... 934-5320

TUTAK, Unal

Jefferson ..... 933-7537

WEAVER, R. M.

Tuscaloosa ..... 758-9001

WELDY, J. F.

Franklin ..... 332-2414

WELLS, M. A.

Tuscaloosa ..... 758-9001

YOUNG, D. B.

Tuscaloosa ..... 758-9001

## reinstated

### LAUDERDALE COUNTY

FREEMAN, William James, b 41, mc Johns Hopkins 67, recip. NBME 72, P. O. Box 2021, Florence 35630. OALR.

### MORGAN COUNTY

LAWLESS, Frederick Wesley, b 31, mc Ala. 71, sb 71, Route 1, Rice Road, Hartselle 35640. GP.

## removed

### GENEVA COUNTY

MERRILL, Frederick G., Removed.  
MILLER, John C., Removed.

## deceased

### TALLAPOOSA COUNTY

GARLINGTON, Robert B., Camp Hill, 6/27/76.

### MARION COUNTY

JOHNSON, William Perry, Heron Lake, Minn. 6/27/76. ■



# DEAN'S REPORT:

CONTINUED FROM PAGE 39

## How many doctors?

manpower pool sizes; and (4) estimations of turnover rates for each pool (number annually leaving practice and, at a steady state, entering practice). The last, turnover rate, gives the number of graduates who must be produced somewhere to enter the pool annually in order to keep the manpower in that pool "adequate for the needs." This exercise would only define the need, it would not necessarily lead to any particular mechanism for meeting that need. Further, by this system a third party, such as government, defines the "need," which may differ from patients' "demands." And it addresses specialty distribution, not geographic distribution, although the two are undoubtedly related. The latter can probably be "solved" only by some form of conscription and assignment of physicians and other health care personnel—the "national resource" which it is now the responsibility of the U.S. Congress to distribute equitably.

### Sluggish Feedback Problem and The Pipeline Effect:

But would even such a comprehensive, cumbersome, expensive evaluation (which is likely to be made) provide a way to "meet the need but not exceed it?" Not likely. Look at the table from Lee & Jones' study. A large effort is required of physicians to treat syphilis and gonorrhea—particularly gynecologists and urologists (though, curiously, not dermatologists, who were sometimes called syphilologists in those days; seems Lee & Jones made a judgment there). Assume knowledgeable Congressmen and their staffs had studied this report in the mid-1930's, got legislation through in 1939 to

increase the number of urologists for this purpose, and started training these in 1940. It would have been 1945 or later before this effort would have come to fruition, the time lapse between acceptance for medical school and completion of residency training. And by then the new treatment with penicillin had changed the need. Similarly, economic factors, population movement and aging, and other phenomena external to the health care system can change the "need," and sluggishness of the feedback loop's response to a "deficit" or "excess" caused by the prolonged training time for health care professionals can thwart such planning.

### Denouement:

Thus, since the public and Congress cannot wait patiently for such trivia, and since they are of dubious utility anyhow, the entire process is likely to be politicized in the extreme. Interestingly, although P.L. 94-484, "finds and declares" that there are now enough physicians, it still includes incentives to increase production of pharmacists, podiatrists, optometrists, and others. Thus, decisions are implicitly included in the law as to the "job descriptions" of the internist, the orthopedic surgeon, the ophthalmologist, and other physicians. Judgments on these issues will not be made on some rigorously analyzed epidemiology but on the basis of how pleasing and persistent some government official finds the personality of some advocate.

What is the best answer—or what are the best answers? One is surely that we must refrain from imposing "solutions" which go far beyond our available data in precision and detail. We may be able to agree that we need more physicians in primary care and agree to promote production of such physicians. But we should refrain from legislative fiat to produce 53,274 by July 1, 1979, with penalties for not doing so. A second overall conclusion is that we should try to educate our legislators as much as possible to some objective reality as regards need rather than just lobbying for our own group.

However, attractive and influential lobbyists are working hard on susceptible legislators and officials. The landscape is littered with rhetorical inanities: "Top flight care at rock bottom prices." "Nothing but the best for all." A 19th century sage—reportedly Daniel Webster—once observed: "Now is the time when men work quietly in the fields and women weep softly in the kitchen; the legislature is in session, and no man's property is safe."

### References:

1. U.S. Congress: Health Professions Educational Assistance Act of 1976. P. L. 94-484, Conference Report, to accompany HR-5546, 94th Congress, 2nd Session, Report No. 94-1612, U. S. Government Printing Office, Washington, D. C., September 17, 1976.
2. U. S. Senate: Health Professions Educational Assistance Act of 1976. Report together with supplemental views. To accompany S-3239, 94th Congress, 2nd Session, Report No.

CONTINUED ON PAGE 56

GENERAL PRACTITIONER AND SPECIALIST HOURS REQUIRED ANNUALLY FOR PREVENTIVE SERVICES, THE PUERPERAL STATE, AND THE DIAGNOSIS AND TREATMENT OF DISEASES PER 100,000 OF THE GENERAL POPULATION

Disease Category	All Physicians	General Practitioner	Specialist											
			All	Obstetrician or Gynecologist	Ear, Nose, and Throat	Internist	Surgeon	Dermatologist	Orthopedist	Urologist	Neurologist	Psychiatrist	Ophthalmologist	Other
Prevention	75,373	75,373												
Puerperal state:														
Prenatal		6,352	2,592	259										
Delivery	27,271	18,327	2,333											
Respiratory	60,611	54,630	5,961		3,489	2,492								
Digestive diseases	22,600	16,101	4,499			1,375	3,124							
Acute communicable	13,874	13,047	827		51	319	257							
External causes	5,512	4,470	1,042				974		68					
Syphilis and gonorrhea	12,276	9,230	3,048	1,512		161				1,479			41	
General diseases	7,561	4,593	2,968		26	1,096	1,757							
Diseases of the skin	2,001	1,585	406				7	399	87					
Female G. U.	4,994	3,293	1,671	1,671										
Muscles, bones, and joints	3,082	1,323	1,759	4	6	17			1,168	13				546
Diseases of the sensory	7,257	6,201	1,066		1	264	683			138				
Chronic heart	8,180	7,937	243		35	208								
Circulatory system	1,058	462	576			8	126							442
Diseases of the ear	2,844	984	1,860		1,860									
Diseases of the eye	2,611	85	2,726		70	204	3	30						2,418
Refraction	13,710*		13,710*											13,710*
Male G. U.	665	63	602				574			28				
Neuralgia, neuritis, sciatica	2,015	1,556	459	13					723		223			
Neuritis and N. E.	4,301	2,532	1,769								26	1,743		
N. and M. Conditions	5,133	1,365	3,768		3	17	215			2,723	77			733
Total	283,131	231,539	51,592*	5,792	5,545	6,216	7,720	429	1,546	1,656	2,972	1,620	16,170*	1,724

\* Or 259 421 if refraction is done by an optometrist.  
 \* Or 37,682 if refraction is done by an optometrist.  
 \* Or 2,460 if refraction is done by an optometrist.

# Continuing Medical Education

Directions Summarized: Choose only one—A, B, C, D, or E.

A	B	C	D	E
1,2,3 only	1,3 only	2,4 only	4 only	All are correct

## NEUROLOGY

- Carpal tunnel syndrome (compression of the median nerve at the wrist) should alert the physician to the possibility of the existence of which of the following?
  - Acromegaly
  - Rheumatoid arthritis
  - Pregnancy
  - Amyloid disease
- In herpes simplex encephalitis of adults, which of the following frequently occur(s)?
  - Onset over a few days
  - Seizures within the first few days
  - Focal cerebral signs
  - Fatal termination
- A 35-year-old man describes a painless, electric sensation that shoots down his back on flexion of the neck (Lhermitte's sign). This symptom may be associated with
  - subacute combined sclerosis
  - multiple sclerosis
  - previous trauma to the cervical spinal cord
  - foramen magnum tumor
- Tumors of the conus medullaris often produce
  - depressed ankle reflexes
  - extensor plantar (Babinski) responses
  - incontinence of bowel and bladder
  - spasticity of the lower extremities
- Clinical features of pseudohypertrophic muscular dystrophy (Duchenne) include
  - diplopia
  - elevated serum creatine phosphokinase
  - fasciculations
  - proximal muscular weakness
- Disorders that may be associated with thyrotoxicosis include
  - myasthenia gravis
  - periodic paralysis
  - myopathy
  - ophthalmoplegia
- Neurologic disorders encountered in children with congenital heart disease include
  - brain abscess
  - optic neuritis
  - cerebral infarction
  - polyneuritis
- Side effects of diphenylhydantoin (Dilantin) may include
  - lymph node enlargement
  - blood dyscrasia
  - hypertrichosis
  - decreased serum protein-bound iodine

- In the management of patients with tetanus,
  - penicillin or a tetracycline compound should be administered
  - the danger of delaying tracheostomy is greatest when there is a short incubation period
  - tetanus toxoid should be administered after recovery
  - tracheostomy obviates the need for curarization
- Ptosis of the eyelids is seen in patients with
  - myotonic dystrophy
  - Bell's palsy
  - myasthenia gravis
  - amyotrophic lateral sclerosis

## CME CALENDAR

### JANUARY

- January 20-22, 7th Annual Postgraduate Course In Gastroenterology, Ochsner Medical Foundation, New Orleans.
- January 24-26, "Recent Advances in Care of the Acutely Injured," Fairmont Hotel, New Orleans. Sponsored: American College of Surgeons and Tulane Medical Center.
- January 28-30, 73rd Congress on Medical Education, Palmer House, Chicago. AMA Sponsor.
- January 28-30, Southern Radiological Conference Annual Meeting, Grand Hotel, Point Clear, Alabama. For further information contact Dr. J. W. Maxwell, P. O. Box 214, Mobile, Alabama, 36601.
- January 30-February 4, 12th Annual Scientific Assembly, Am. Society of Contemporary Medicine and Surgery, Diplomat Hotel, Hollywood, Fla.
- January 30-February 5, 12th Annual Scientific Assembly, Am. Society of Contemporary Ophthalmology, Diplomat Hotel, Hollywood, Florida. Approved for 42 hours Category 1 credit, A.M.A. and Certificate of Advanced Studies In Ophthalmology. Contact: Dr. John Bellows, 30 N. Michigan Ave., Chicago, IL 60602.
- January 31-February 1, First International Glaucoma Congress, Diplomat Hotel, Hollywood, Fla.

### FEBRUARY

- February 3-5, "Vascular Surgery—Updated," Ochsner Medical Foundation, New Orleans.
- February 4-6, National Conference on the Impaired Physician, Hyatt Regency Hotel, Atlanta, Ga. Contact: AMA Dept. of Mental Health, 535 N. Dearborn St., Chicago, Illinois 60610.
- February 8-9, "Surgery, 1977," Ambulatory Care Center, UAH School of Primary Medical Care, Huntsville.
- February 26-27, Annual Anesthesiology Review Course, "Issues and Answers In Anesthetic Practice—Anesthesia and the Nervous System," New Basic Science Bldg., Univ. of Alabama, Birmingham. Appropriate cme credit applied for. Contact: M. Clifford Holcomb, M.D., Assoc. Dir., Graduate Training Program, Dept. of Anes., UAB, 35294.

### MARCH

- March 2-4, 30th Annual Symposium on Fundamental Cancer Research, Shamrock Hilton, Houston.

### ANSWERS

1.	E
2.	E
3.	E
4.	B
5.	C
6.	E
7.	B
8.	E
9.	A
10.	B





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## Bureau of Preventable Diseases

FREDERICK S. WOLF, M.D., DIRECTOR

### ST. LOUIS ENCEPHALITIS

The sharp drop in temperature experienced by Alabama apparently marks the end of the 1976 St. Louis Encephalitis outbreak. Colder weather reduces the mosquito population by inhibiting the vector's life cycle and causes the adult mosquito to seek a suitable habitat for overwintering. As far as is known, the SLE virus does not die in the overwintering female mosquito. The infected female mosquito pool is available to continue the disease when the vector resumes warmer weather activity.

As of November 3, 1976, a total of 229 individual patients were studied for the disease. The investigation confirmed 36 SLE patients, 26 were considered presumptive diagnoses, and 167 were classified as SLE suspects. The confirmed SLE patients were residents of these counties: Tuscaloosa (15), Mobile (13), Montgomery (3), Dallas (Selma 2), Jefferson (2), Limestone (Capshaw 1). The presumptive SLE patients were residents of: Tuscaloosa (14), Mobile (9), Jefferson (1), Crenshaw (1), Pickens (1).

**Epidemic of a New Virus With A High Fatality Rate**—An ongoing outbreak of a viral hemorrhagic fever caused by a virus which resembles Marburg virus but is antigenically distinct is occurring in the African countries of Zaire and Sudan. As of October 16, 1976, there were 318 deaths reported from this disease. Of these, approximately 22% were children and 78% adults. Early cases in Sudan were brought to Maridi Hospital where currently 30 of the 42 known cases are staff members. This and other data suggests direct person-to-person transmission in both household and hospital settings. It is not yet known whether or not asymptomatic carriers exist. The case fatality ratio is believed to be in excess of 70%. Because of modern transportation and the estimated incubation period of from four to sixteen days, the possibility of introduction of this disease into the United States is a real one. Persons entering the United States from Zaire and Sudan are being screened by personnel of the Quarantine Division, Bureau of Epidemiology, Center for Disease Control, and are being placed under medical surveillance for 21 days.

The early clinical syndrome is non-specific and consists of the abrupt onset of fever, headache, malaise, and myalgias followed by pharyngitis, ulceration of the mouth, cough, abdominal pain, vomiting, and diarrhea. Upper respiratory tract symptoms are more common than gastrointestinal symptoms. After three to five days a hemorrhagic diathesis occurs with bleeding from various sites. In some cases an erythematous macular rash has been noted. Some patients develop tremors and convulsions suggesting central nervous system involvement. Fatal cases become very toxic with death

occurring within seven to fourteen days after the onset of disease. The disease should be suspected in anyone presenting with these symptoms who has recently travelled to East or Central Africa, particularly to the countries of Zaire or Sudan, or who has been in close contact with individuals who have travelled to that area. Patients suspected of having this disease should be quarantined immediately at home or immediately placed under strict isolation in a hospital. Any suspected cases should be immediately reported to the Bureau of Preventable Diseases at the State Health Department at 832-3207.

### PENICILLIN RESISTANT GONORRHEA

There have been several recent reports of the introduction into the United States of penicillinase producing *Neisseria gonorrhea* which are resistant to treatment by penicillin or ampicillin. At present the number of such organisms in the United States is very small but it may be expected to increase. In some areas of Far Eastern countries prevalence of penicillin resistant gonorrhea is as high as 30 to 40%. In order to detect such penicillin resistant strains, it is recommended that all gonorrhea patients be encouraged to return three to seven days after treatment for follow-up or "test of cure" culture. Those who have a positive follow-up culture will fall into one of three categories. First, is the reinfection category in which the patient has become reinfected through sexual contact. Second, will be those with sub-optimal treatment regimens. These may result from failure to take all of the medication and in oral regimen, from failure to take the prescribed probenecid along with parental medication, or from failure to receive the full 4.8 million units of aqueous procaine penicillin G in the intramuscular regimen. Third, are true penicillin resistant cases. For any patient whose follow-up culture is positive and who does not give a history compatible with reinfection, the culture isolate should be forwarded to the State Laboratory for penicillin sensitivity testing, and the patient should be treated with spectinomycin 2 gm. intramuscularly as a single dose.

Since these organisms remain rare in the United States at this time, the Center for Disease Control does not propose to change its recommended regimens. Rather, a different emphasis is placed upon the alternative regimens. *By far the most effective treatment, and the drug regimen of choice, remains 4.8 million units of aqueous procaine penicillin G intramuscularly, administered simultaneously with 1 gm. of probenecid orally.* An alternative but a less effective regimen is ampicillin 3.5 gm orally, plus 1 gm. of probenecid orally. Ampicillin is only recommended in the specific circumstances where oral therapy is clearly preferred and the patient is very likely to return for reexamination. For patients who are allergic to penicillin, a regimen of tetracycline is available. This should consist of 1.5 gm. orally initially, followed by 0.5 gm. orally four times a day for four days (total dose 9.5 gm.). This is effective if patients take the medication as recommended. Suboptimal tetracycline therapy due to partial compliance contributes to the selection of gonococci



relatively resistant to tetracycline, penicillin, and ampicillin. Penicillinase producing gonococci identified in the United States are now relatively resistant to tetracycline regimen receive a follow-up "test of cure" culture.

While intramuscular spectinomycin remains an effective treatment for gonorrhea, the Center for Disease Control now recommends that its use be restricted in order to preserve its effectiveness for use in patients with penicillin resistant gonorrhea. The Center for Disease Control now states: "We recommend that physicians restrict their use of spectinomycin, given in 2 gm. intramuscular dose, to two groups of patients. First, those infected with penicillinase producing organisms and their recent sexual partners and, second, those with a positive 'test of cure' culture after initial treatment with recommended doses of penicillin, ampicillin, or tetracycline. Absolute resistance of the gonococci to spectinomycin has been documented in the past and injudicious use of this drug could ultimately result in spectinomycin resistant organisms."

The Venereal Disease Control Program of the Bureau of Preventable Diseases has always emphasized and requested reporting of all cases of gonorrhea so that contact follow-up may be performed. We would again like to stress that it is imperative that all suspected cases of penicillin resistant gonorrhea be reported immediately so that contact follow-up may be performed and the spread of this form of gonorrhea be checked.

## INFLUENZA

All influenza A vaccines (bivalent with A/New Jersey and A/Victoria or monovalent with A/New Jersey) are available only through the National Influenza Immunization Program (NIIP). These vaccines are available to physicians through local health departments. They cannot be purchased from drug outlets or from the manufacturer.

Last year's influenza vaccine should not be administered to patients by physicians because it contains only A/Scotland (350 CCA units), A/Port Chalmers (350 CCA units), and B/Hong Kong (500 CCA units) influenza antigens. A/Scotland and A/Port Chalmers influenza strains have not occurred in several years. This vaccine is completely ineffective against A/New Jersey and A/Victoria influenza viruses which may cause influenza this coming year. The influenza B component in last year's vaccine is the same as that which is recommended this year by the Advisory Committee on Immunization Practices for the traditional high-risk groups and is available commercially in monovalent form.

Monovalent B/Hong Kong influenza vaccine may be administered simultaneously with NIIP vaccines, but simultaneous administration may increase the number and severity of reactions to the vaccine.

Physicians are encouraged to administer monovalent and bivalent NIIP vaccines as promptly as possible to insure an adequate antibody response prior to the beginning of the flu season.

During the week ending October 30, 1976, a total of 3,897,786 influenza inoculations were given nationwide.

Since the beginning of the program a total of 9,613,029 inoculations have been given. Approximately 18.2% of the eligible population in the State of Alabama have been inoculated in mass clinics held in 34 counties throughout the State. Estimated reaction rate in the State is less than 1%. The majority of reported reactions have been in the form of mild fever and muscle aches.

## GONORRHEA—NOVEMBER 1976

Total Female Specimens	25,804
Positive Cultures	1,200
Positive	4.7%
Submitted from Private Practice	24,196
Positive Cultures	773
Positive	3.2%

## CURRENT MORBIDITY STATISTICS

	September	October	*E.E. October
Tuberculosis	73	69	103
Syphilis	32	25	49
Gonorrhea	2,011	2,447	958
Chancroid	0	0	0
Typhoid fever	1	0	0
Salmonella	42	41	25
Undulant fever	0	0	0
Shigella	4	13	13
Amebic dysentery	0	3	0
Scarlet fever & strep. throat	335	468	517
Diphtheria	0	0	1
Whooping cough	1	2	2
Meningitis	9	15	16
Tularemia	0	0	0
Tetanus	0	0	1
Poliomyelitis	0	0	0
Encephalitis	10	15	1
Smallpox	0	0	0
Measles	0	0	1
German measles	0	0	2
Chickenpox	1	29	10
Mumps	11	18	21
Hepatitis	38	36	39
Typhus fever	0	0	0
Rocky Mt. spotted fever	2	3	0
Malaria	1	0	0
Rheumatic fever	0	1	8
Rheumatic heart	8	6	13
Influenza	10	12	43
Pneumonia	201	215	199
Rabies—Human cases	0	0	0
Pos. animal heads	6	1	0

As reported by physicians and including deaths not reported as cases. \*E.E.—The estimated expectancy represents the median incidence of the past nine years. ■

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## DEAN'S REPORT

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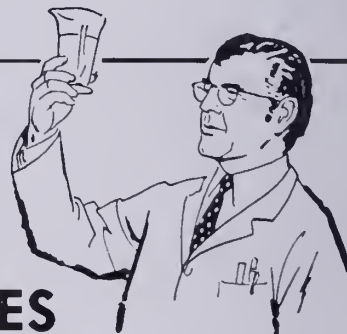
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# MEDICAL HOTLINE



That mysterious legionnaires' disease which killed 29 individuals and caused 151 to be hospitalized remains an unsolved "epidemic". Cures have eluded the best physicians and scientists our technology has to offer. Strange that we hear so little about it today. The disease may come again, but until that time, modern medical science continues its search. Even the newspapers say very little about the subject. Nearly everything it touched, died. The landmark hotel in Philadelphia—the Bellevue Stratford—where it struck has now closed. Strange, isn't it?

The University of Alabama College of Community Health Sciences has announced that it will begin a family practice residency program at the newly opened Selma-Dallas County Family Practice Center in July, 1977. The College along with the other three medical schools in Huntsville, Birmingham, and Mobile are wasting little time in expanding their family practice training programs. It was back in November, 1974, when a special seminar was held at UAB on "Alabama's Doctor Shortage." As an outgrowth of that seminar and because more public attention has focused recently on "doctor shortages" all across the nation, the Alabama schools have responded quickly and productively. And their educational outreach continues!

For the "leisure seekers," MASA has planned three trips for 1977: March 13-19—Crested Butte Ski Trip; July 16-19—European Adventure; October—Japan and Hong Kong Excursion.

District caucuses will be held beginning in January to consider Associational business and make recommendations as a prelude to any final action at the annual meeting in April. The forthcoming caucuses will mark their second go-round since the adoption of the new Constitution and Bylaws in April, 1975. Physician involvement last year was quite evident and the coming year promises to be more of the same.

American schools of medicine—Beware! A new federal law is posing severe difficulties for American schools of medicine. The law in question is the new medical school assistants bill, the language of which requires medical schools to reserve places for Americans who were rejected before but who are now pursuing their medical studies abroad. The kicker: Schools could lose their federal grants and loans if they refuse to admit some of these previously rejected Americans.

A Virginia court has ruled that states may no longer prohibit physicians' directories that list their qualifications and fees. The court said, in effect, that consumers should not be deprived of the opportunity to shop around for a doctor of their choice. If upheld on appeal, the ruling could have broad impact. Thirty-four states now have laws which ban advertising by physicians.

CONTINUED ON PAGE 58

# MEDICAL HOTLINE



Zero-base budgeting proposals are cropping-up everywhere like kudzu vines. Alabama's "sunset committee" has already begun whittling away at state agencies which are called upon to justify their existence. The new 95th Congress, which meets in January, will come to grips with the issue of perpetual life for federal programs. Prognostication: a new federal mandate on zero-base budgeting—a national "sunset law."

MASA's 116th Annual Session will be held in Mobile, April 14-16, 1977. There will be a new twist to the scientific portion of the program with meetings to be held in specialty fields. William F. Wright, M.D., MASA president, and the Council on Education are working diligently toward this goal.

ALAPAC dues may be used as a tax deduction or a tax credit as ruled by the Internal Revenue Service. Current ALAPAC dues are \$50 per person and ALAPAC is one of the smartest investments a physician can make. It is still the best bargain in town!

The AMA Clinical Convention in Philadelphia will be history by the time this is read and hopefully it will be known what course of action, if any, the AMA opts for in regard to future NIH proposals before Congress. It will be interesting, to say the least. Congress and the new administration may find "the row tough to hoe" if the AMA gets pinned in a corner and like a wounded animal is left with no recourse but to fight for survival.

**Private Practice** (November, 1976 issue) contained this cute little article under the headline "Does Senator Moss Have Children?"

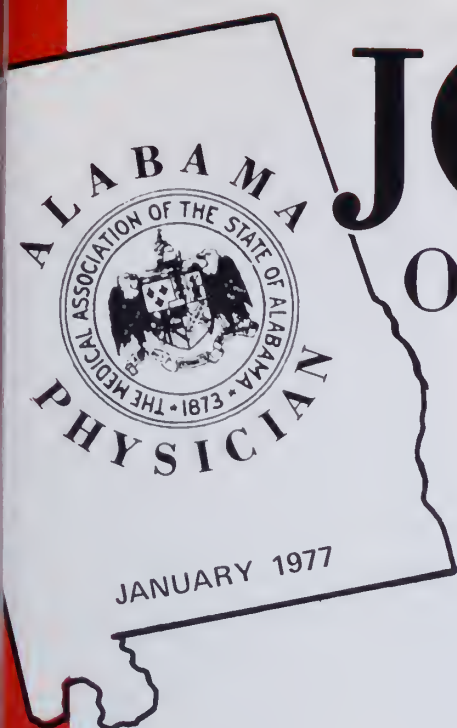
"Over in Maryland, the Commission on Intergovernmental Relations has come up with a plan for nationalizing medical care for children under six. Under the plan, health officials would set up pediatric mills, much like the controversial Medicaid mills now in operation. The major difference: the kids will be too young to complain. H.W. is delighted."

Jefferson County Medical Society and Mobile County Medical Society have come on like gangbusters in the past year. Their success stories can be summarized in two words: purpose and determination. And leadership goes a long way, too! We will most assuredly hear more from these active bastions of medical professionalism.

The Mutual Assurance Society of Alabama is now being organized and actively seeking participation by MASA members. A. Derrill Crowe, M.D., will be The Society's first president. What a job it has been to form this company! Many physicians deserve a "hats-off" salute for their many hours of service and dedication.

The Alabama Legislature convenes February 1, 1977. 'Nuff said!





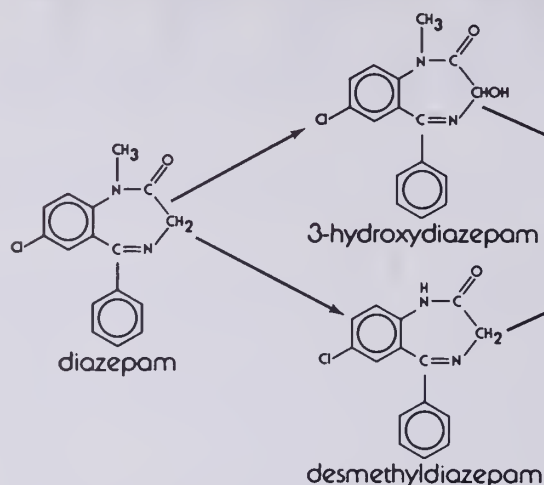
# JOURNAL

Of The Medical Association  
Of The State Of Alabama

AMA DELEGATES REPORT



# A pharmacokinetic character all its own



**Valium (diazepam) is a benzodiazepine with a distinctive pharmacokinetic profile**

The pharmacokinetic profile of Valium is one of the characteristics that sets it apart from other benzodiazepines. Consider, in particular, the metabolic pathway of Valium. The three major metabolites of Valium exhibit significant pharmacologic activity—and so, of course, does the parent substance—diazepam itself. All combine to produce the characteristic clinical response seen with Valium. The response you have come to know, to want and to trust.

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to reflex spasm to local pathology; spasticity caused by upper motor neuron disorders; athetosis; stiff-man syndrome; convulsive disorders (not for sole therapy).

**Contraindicated:** Known hypersensitivity to the drug. Children under 6 months of age. Acute narrow angle glaucoma;

may be used in patients with open angle glaucoma who are receiving appropriate therapy.

**Warnings:** Not of value in psychotic patients. Caution against hazardous occupations requiring complete mental alertness. When used adjunctively in convulsive disorders, possibility of increase in frequency and/or severity of grand mal seizures may require increased dosage of standard anticonvulsant medication; abrupt withdrawal may be associated with temporary increase in frequency and/or severity of seizures. Advise against simultaneous ingestion of alcohol and other CNS depressants. Withdrawal symptoms (similar to those with barbiturates and alcohol) have occurred following abrupt discontinuance (convulsions, tremor, abdominal and muscle cramps, vomiting and sweating). Keep addiction-prone individuals under careful surveillance because of their predisposition to habituation and dependence.

**Usage in Pregnancy:** Use of minor tranquilizers during first trimester should almost always be avoided because of increased risk of congenital malformations as suggested in several studies. Consider possibility of pregnancy when instituting therapy; advise patients to discuss therapy if they intend to or do become pregnant.

**Precautions:** If combined with other psychotropics or anticonvulsants, consider carefully pharmacology of agents employed; drugs such as phenothiazines, narcotics, barbiturates, MAO inhibitors and other antidepressants may potentiate its action. Usual precautions indicated in patients severely depressed, or with latent depression, or with suicidal tendencies. Observe usual precautions in impaired renal or hepatic function. Limit dosage to smallest effective amount in elderly and debilitated to preclude ataxia or oversedation.

**Side Effects:** Drowsiness, confusion, diplopia, hypotension, changes in libido, nausea, fatigue, depression, dysarthria, jaundice, skin rash, ataxia, constipation, headache, incontinence, changes in salivation, slurred speech, tremor, vertigo, urinary retention, blurred vision. Paradoxical reactions such as acute hyperexcited states, anxiety, hallucinations, increased muscle spasticity, insomnia, rage, sleep disturbances, stimulation have been reported; should these occur, discontinue drug. Isolated reports of neutropenia, jaundice; periodic blood counts and liver function tests advisable during long-term therapy.



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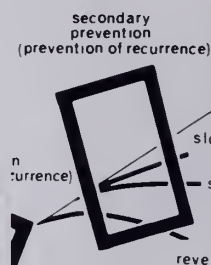
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This 113-bed non-governmental psychiatric hospital provides modern facilities for diagnosis and treatment of patients with all degrees of illness, including those who show severely disturbed behavior. Alcoholic and drug abuse patients are also accepted.

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Hill Crest is a member of: American Hospital Association, National Association of Private Psychiatric Hospitals, Alabama Hospital Association, Birmingham Regional Hospital Council.

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# 19 VIEWS



1977 portends to be a special kind of year for this Association, one which even stands on the threshold of greatness! Optimistically, staggering pressures of recent years as medicine reels from crisis to crisis may be subsiding enough to give us a period of unprecedented accomplishments. It is always easier to accomplish great things when one's attention is not being constantly diverted by distractions.

A straight-ahead, "eyes forward" approach is our goal now for the new year. Already, the calendar reads of busy programs and activities: caucus meetings, leadership conferences, annual legislative session, cme regional meetings, annual meeting in April, practice management conferences, AMA convention in June, to name a few.

The malpractice insurance company has now been formed and is operating with home offices in Birmingham. More staff attention can be directed now to other equally important — and oft times— neglected Association services for its membership. The capability is here; the talent is available. Let's push the throttle forward together and get the New Year off to a running start!

Not to be overshadowed is the list of fine trips planned for Association members during the coming year. Excursions to Crested Butte Ski Resort, Europe and Japan-Hong Kong may be the finest group of trips planned by this Association in quite some time.

The Crested Butte trip (March 13-19) is practically full at this writing. Our previous experience at the Colorado ski resort was very favorable and members have responded well to this year's plans.

Information about the European adventure (July 16-29) and the Japan-Hong Kong foray (October) will be published in both *The Alabama M.D.* and the *Journal* in addition to direct mailings. These trips have something for everyone and it is our hope that members will avail themselves of these exciting opportunities. ●

**1977 Annual Meeting  
April 14-16  
Mobile, Alabama**

## INFORMATION FOR AUTHORS CONCERNING MANUSCRIPTS

Manuscripts should be typewritten, double spaced on white paper 8½ x 11 inches with adequate margins. The original copy, not the carbon copy, should be submitted. Authority for approval of all contributions rests with the Editor. **The Journal of The Medical Association of The State of Alabama** reserves the right to edit any material submitted. The publishers accept no responsibility for opinions expressed by contributors.

### Style

The first page should list title, the author (or authors), degrees, and any institutional or other credits. Bibliographies must contain in the order given: Name of author, title of article, name of periodicals with volume, page, month — day of month if weekly — and year. Number should be limited to absolute minimum. References should be numbered consecutively in order in which they appear in the text.

### Length Of Articles

Articles should not exceed 3,000 words (approximately 3-4 printed pages). Under exceptional circumstances only will articles of more than 4,000 words be published.

### Illustrations

Illustrations should be numbered consecutively and indicated in the text. The number, indication of the top, and the author's name should be attached to the back of each illustration. Legend should be typed, numbered, and attached to each illustration. Photographs should be clear and distinct; drawings should be made in black ink (preferably India ink) on white paper. For half tones, glossy photographs should be submitted.

### Reprints

Reprint orders should be returned at once. Prices for reprints, based on numbers of pages, will be furnished upon request.

Communications should be addressed to **The Journal of The Medical Association of The State of Alabama**, P. O. Box 1900-C, Montgomery, Alabama 36104. Telephone: 263-6441, Area Code 205. ●

### About The Cover

AMA photographer Joe Fletcher graciously honored a special request to photograph the Alabama Delegation during a working session of the recently concluded Clinical Convention in Philadelphia. His photo of Drs. Burleson, Emfinger and White is featured on our front cover of this month to emphasize to the reader that the complete AMA delegates report is included in this issue (following a tradition begun several years ago by the Journal staff.) ●



# AMA Expands Continuing Medical Education Opportunities in 1977.



## Now you can choose from 15 regional CME meetings!

Recognizing the importance of continuing medical education to its members, the AMA has greatly expanded its CME programs. During 1977, the AMA will offer 15 regional CME meetings around the country in addition to its scientific programs at both the Annual Convention and Winter Meeting.

The purpose of the regional programs is to make it easier and more convenient for you to continue your medical education by bringing the meetings closer to your hometown and by scheduling them on the weekends to

avoid interference with your practice.

All courses are approved by the AMA Council on Continuing Physician Education for Category 1 credit toward an AMA Physician's Recognition Award. A syllabi written by medical school faculties is provided with every course.

Specific information on course location, fees, academic program, faculty, and hotel reservations will be available approximately 2 months before each course date. Please write to address below at that time stating your selection(s). Print name, address, and office phone number.

### 1977 Regional Schedule

Tulsa, Oklahoma	January 22-23
Birmingham, Alabama	February 5-6
*Lake Tahoe, Nevada	February 11-13
Denver, Colorado	February 19-20
*Tarpon Springs, Florida	March 4-6
Detroit (Southfield), Michigan	March 26-27
New York (Westchester), New York	April 16-17
Houston, Texas	May 15
Hartford, Connecticut	September 10-11
*Lake of the Ozarks, Missouri	September 16-18
Chicago, Illinois	September 24-25
*Hot Springs (Homestead), Virginia	Sept. 30-Oct. 2
*Huron, Ohio	October 7-9

*Honolulu, Hawaii	Oct. 30-Nov. 4
Hershey, Pennsylvania	November 18-19

### AMA's 126th Annual Convention

San Francisco, California	June 18-22
---------------------------	------------

### AMA's Winter Scientific Meeting

Miami Beach, Florida	December 10-13
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### AMA Spokesmanship Seminars

Chicago, Illinois	August 13-14
(Marriott O'Hare Hotel)	November 12-13

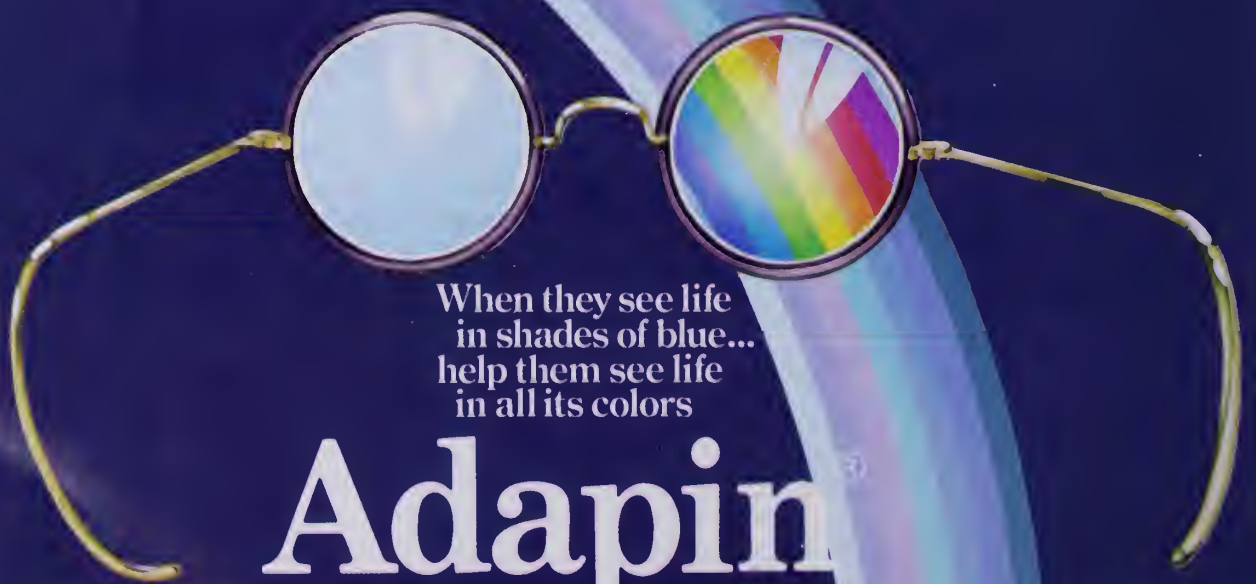
\*Courses end at midday for recreation activities

AMA Department of Meeting Services  
535 North Dearborn Street  
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Depression comes in  
shades of blue



Insomnia  
is a shade of blue  
that often accompanies  
depression

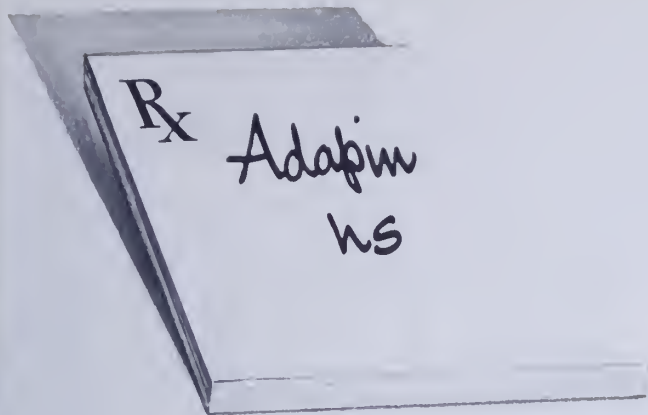


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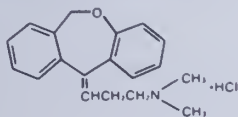
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**Adapin (doxepin HCl)** is an isomeric mixture of N, N-dimethyl-dibenz(b,e) oxepin-  $\Delta$ II(6H),  $\gamma$  propylamine hydrochloride.



#### ACTIONS

**Adapin** has a variety of pharmacological actions with its predominant action on the central nervous system. While its mechanism of action is not known, studies have demonstrated that it is neither a monoamine oxidase inhibitor nor a primary stimulant of the central nervous system.

#### INDICATIONS

In controlled clinical evaluations, **Adapin** has shown marked antianxiety and significant antidepressant effects. **Adapin** has been found to be well tolerated even in elderly patients.

**Adapin** is indicated for the treatment of patients with:

1. Psychoneurotic anxiety and/or depressive reactions.
2. Mixed symptoms of anxiety and depression.
3. Anxiety and/or depression associated with alcoholism.
4. Anxiety associated with organic disease.
5. Psychotic depressive disorders including involutional depression and manic-depressive reactions.

Target symptoms of psychoneurosis that respond particularly well to **Adapin** include: anxiety, tension, depression, somatic symptoms and concerns, insomnia, guilt, lack of energy, fear, apprehension and worry.

Because **Adapin** provides antidepressant as well as antianxiety effects, it is of particular value in patients in whom anxiety masks depression. Patients who have not responded to other antianxiety or antidepressant drugs may benefit from **Adapin**.

In a large series of patients systematically observed for withdrawal symptoms, none were reported—a finding which is consistent with the virtual absence of euphoria as a side effect and the lack of addictive potential characteristic of this type of chemical compound.

#### CONTRAINDICATIONS

Because **Adapin** has an anticholinergic effect, it is contraindicated in patients with glaucoma or a tendency toward urinary retention.

Use of **Adapin** is contraindicated in patients who have been found hypersensitive to it.

#### WARNINGS

**Usage in Pregnancy**—**Adapin** has not been evaluated in pregnant patients. Therefore, it should not be used during pregnancy unless, in the judgment of the physician, it is essential to the welfare of the patient.

In animal reproduction studies of **Adapin (doxepin hydrochloride)**, gross and microscopic examination of the offspring gave no evidence of drug-related teratogenic effect. Following doses of up to 25 mg./kg./day for 8 to 9 months, no changes were observed in the number of live births, litter size, or lactation. A decreased rate of conception was observed when male rats were given 25 mg./kg./day for prolonged periods—an effect which has occurred with other psychotropic drugs and has been attributed to drug effect on the central and/or autonomic nervous systems.

**Usage in Children**—The use of **Adapin** in children under 12 years of age is not recommended, because safe conditions for its use have not been established.

**MAO Inhibitors**—Serious side effects and even death have been reported following the concomitant use of certain drugs with MAO inhibitors. Therefore, MAO inhibitors should be discontinued at least two weeks prior to the cautious initiation of therapy with **Adapin**. The exact length of time may vary and is dependent upon the particular MAO inhibitor being used, the length of time it has been administered, and the dosage involved.

#### PRECAUTIONS

Drowsiness may occur with **Adapin**; therefore, patients should be warned of its possible occurrence and cautioned against driving a motor vehicle or operating hazardous machinery while taking the drug.

Patients should also be cautioned that the effects of alcoholic beverages may be increased.

Since suicide is an inherent risk in depressed patients and remains a risk through the initial phases of improvement, depressed patients should be closely supervised.

Although **Adapin** has shown effective tranquilizing activity, the possibility of activating or unmasking latent psychotic symptoms should be kept in mind.

Compounds structurally related to **Adapin** can block the effects of guanethidine and similarly acting compounds. However, at the usual clinical dosages, 75 mg. to 150 mg. per day, **Adapin** has been given concomitantly with guanethidine without blocking its antihypertensive effect. But at dosages of 300 mg. per day or higher, **Adapin** has exerted a significant blocking effect.

**Adapin**, like other structurally related psychotropic drugs, potentiates norepinephrine response in animals. But this effect has not been observed with **Adapin** in humans, which is in accord with the low incidence of tachycardia reported clinically.

#### ADVERSE REACTIONS

**Anticholinergic Effects:** Dry mouth, blurred vision and constipation have been reported. These are usually mild, and often subside as therapy is continued or dosage reduced.

**Central Nervous System Effects:** Drowsiness has been observed. It usually occurs early in the course of therapy and tends to subside as therapy continues. (See Dosage and Administration section.)

**Cardiovascular Effects:** Tachycardia and hypotension have been reported infrequently.

Other infrequently reported adverse effects include extrapyramidal symptoms, gastrointestinal reactions, secretory effects (such as increased sweating), weakness, dizziness, fatigue, weight gain, edema, paresthesias, flushing, chills, tinnitus, photophobia, decreased libido, rash, and pruritus.

#### DOSAGE AND ADMINISTRATION

**In most patients with mild to moderate anxiety and/or depression:**

10 mg. to 25 mg. t.i.d. to start. A starting dosage of 10 mg. t.i.d. for a period of four days may reduce the initial drowsiness experienced by some patients, and may be tried in cases where drowsiness is clinically undesirable. Decrease or increase the dosage at appropriate intervals according to individual response. Usual optimum dosage is 75 mg. to 150 mg. per day.

In some patients with mild symptomatology or emotional symptoms accompanying organic disease, dosage as low as 25 mg. to 50 mg. per day has provided effective control.

**In more severe anxiety and/or depression:** 50 mg. t.i.d. may be required to start—if necessary, gradually increase to 300 mg. per day. Additional effectiveness is rarely obtained by exceeding 300 mg. per day.

Although optimal antidepressant response may not be evident for two to three weeks, antianxiety activity is rapidly apparent.

#### OVERDOSAGE

**Symptoms**—An increase of any of the reported adverse reactions, primarily excessive sedation and anticholinergic effects such as blurred vision and dry mouth. Other effects may be: pronounced tachycardia, hypotension and extrapyramidal symptoms.

**Treatment**—Essentially symptomatic; supportive therapy in the case of hypotension and excessive sedation.

#### HOW SUPPLIED

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Bulletin #433-76**

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**special report  
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**drug  
bulletin**

**Health care doesn't  
need more red tape**

**Drug firms challenge  
'MAC' rules**

**Drug  
Substitution**

**The Consensus: Dissemination  
of Health Progress in  
RESEARCH**

**Mailgram**



# THERE ARE A LOT OF PEOPLE GETTING BETWEEN YOU AND YOUR PATIENT.

Medicine today is in the spotlight, subjected to all kinds of scrutiny. Your control over patient therapy is being monitored, judged and occasionally abrogated, sometimes by unknown third parties.

The worry is that in the wake of this focus, the relationship between you and your patient will be weakened, without offsetting benefits. Consider three examples:

**Drug substitution** In most states, pharmacy laws, regulations or professional custom stipulate that your non-generic prescriptions be filled with the precise products you prescribe. But in the last five years, a dozen or more State laws have been changed, permitting the pharmacist in most cases to select a product of the same generic drug to fill any prescription.

Ironically, this dilution of physician control has taken place against a background of growing evidence that purportedly equivalent drug products may be inequivalent, since neither present drug standards nor their enforcement are optimal. In fact, the FDA itself says it has not enforced the same standards for hundreds of "follow-on" products that it had applied to the original NDA approvals. Thus physician control over patient therapy is being eroded with a risk that patients may be exposed to drugs of uncertain quality.

The major advertised claim for substitution is reduced prescription prices for consumers. Yet no documentation of any significant savings has been produced.

**MAC** Maximum Allowable Cost, MAC for short, is a Federal regulation designed to cut the Government's drug bill by setting price ceilings for drugs dispensed to Medicare and Medicaid patients. Unless the prescriber certifies on the prescription that a particular product is medically necessary, the Government intends to pay only for the cost of the lowest-priced, purportedly-equivalent,

generally-available product. The effect of the program may be that elderly and indigent patients will be restricted to products which someone in Washington believes are priced right. Practicing doctors will have little to say about administration of the program, since Government will have absolute authority to make its choices stick.

**The drug lag** The future of drug and device research depends upon a scientific and regulatory environment that encourages therapeutic innovations. The American pharmaceutical industry annually is spending more than \$1 billion of its own funds and evaluating more than 1,200 investigational compounds in clinical research. Disease targets include cancer, atherosclerosis, viruses and central nervous system disorders, among others. But there is a major barrier to the flow of new drugs to your patients: The cost of the research is more than ten times what it was, per product, in 1962; and whereas governmental clearance of new drug applications took six months then, it commonly consumes two years now.

The FDA needs adequate time, of course, to consider data. But it is equally clear that the present approval process contributes to needless delay of needed therapy. That's why the increased efficiency of the drug approval process is vital to all our futures.

If these issues concern you, we suggest that you make your voice heard—among your colleagues and your representatives in State legislatures and in Washington.

It could make a difference in your practice tomorrow.

Pharmaceutical Manufacturers Association  
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It's 25 inches shorter and several hundred pounds lighter than full-size U.S. luxury cars. It's got a 5.7 liter electronic fuel injected engine as standard equipment. Front disc brakes are combined with a new Power Brake Booster. And it showed a fuel-thrifty 21 mpg highway and 15 mpg city in EPA testing.

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## **A New Twist To MASA's Annual Meeting**



**WILLIAM T. WRIGHT, M.D.**

APRIL 14, 15, and 16, 1977, MASA's Annual Meeting in Mobile, will have a new look. It is almost impossible to develop a Scientific Program in which each lecture will appeal to situations in all types of practice. We have studied the annual meetings of many other states to see what we could do to improve the interest and attendance at our Scientific Sessions.

So, on Friday, April 15, for one-half day we will, for the first time, run three Scientific Sessions simultaneously. One of these Sessions is being planned by the surgeons with input from surgical sub-specialties; one session is being planned by the pediatricians with the cooperation of the family physicians; and the third session is being planned by the internists. We hope these scientific lectures will be of interest to most of the physicians in the State.

Mobile has always been a well-attended meeting site. We have great seafood, sunshine and good fishing. If I may, in all modesty, recommend my town. We are anxious for you not only to have a good time at the meeting, but would like for you to gain some real pearls of medical wisdom which will help you to better serve your patients when you return home.

This will also be an important Annual Meeting from a business standpoint. Our newly-formed insurance company, which is being formed to write your malpractice insurance, will be in business before the Annual Session and each of you should be interested in an update of the company's progress. There will be many other important issues to be considered at this meeting, but I hope you will plan an extra day or so for golf, fishing or just time to relax on the Gulf Coast.

*Bill*



## THE PRESIDENT WHO SLEPT THROUGH HIS ADMINISTRATION

You don't see his picture on classroom walls; his likeness has never adorned a stamp, currency or coin. Most likely you've never heard of this man, and you would no doubt protest vigorously if someone pointed out that he was once President of the United States.

But, he was! To get the story one must be transported by history's time machine to Washington, D.C., in 1849.

The nation's capitol in this period was a medium-sized Southern community of 40,000 inhabitants, with slave pen and auction block, open gutters and nondescript architecture. The streets were unpaved, dusty in summer, muddy in winter.

In spite of its depressing appearance, however, Washington in early March of that year was in a festive mood. In railway cars, on steamboats, in carriages, on horseback and afoot, residents of every corner of the country were pouring into the District of Columbia. The largest crowd that Washington had ever seen was congregating for the inauguration of President-elect Zachary Taylor.

The night of March 3 was a particularly rugged time in the houses of Congress as members of these august bodies struggled frantically to wind up the business of the waning lameduck session. Tempers flared and arguments became boisterous. The dignified halls gradually took on the aspect of bedlam. Many members were drunk; others were disorderly. A fist fight broke out in the Senate chamber and blood was spilled on the floor of the House. It was a weary group of men who finally fled Capitol Hill that night after Speaker Winthrop and Senate President *pro tempore* David Rice Atchison adjourned their houses *sine die*.

The next day, March 4, marked the end of the James K. Polk administration. At noon Zachary Taylor was to be sworn in as President. But March 4th happened to fall on a Sunday that year. Taylor, being a very religious man, did not believe in work or official duties on Sunday, so he refused to take office before Monday, March 5th.

His decision meant that the office of the President of the United States would be vacant for one full day.

So, who was to be the interim President of the United States? The Succession Act of 1792 suggested the answer. It provided that "in case of removal, death, resignation, or inability of both the President and the Vice President, the President of the Senate for the time being shall act as President of the United States until the disability be removed or a President shall be elected."

There was a vacancy and the President of the Senate was David Rice Atchison of Missouri. *The Biographical Congressional Directory 1774-1903* records: "This office made him (David Rice Atchison) President of the United States during Sunday, March 4, 1849, as General Taylor was not sworn into office until the following day."

Strangely enough, Atchison is the President that history has forgotten. Yet his name is better remembered than many and more often mentioned than most.

For the city of Atchison, Kansas, was named after him; also the county of Atchison, Missouri; as well as a railroad which he helped organize, the Atchison, Topeka and Santa Fe.

The last week of President Polk's term was a hectic one. In addition to the constant squabbling on the Senate floor, there were the usual social activities leading up to the inauguration of President Taylor. Senator Atchison, being a dedicated public servant and spirited party-goer, didn't miss a day's work or a night's partying.

When he finally retired on Saturday night, March 3, he was completely bushed. He was, in fact, so tired that he left explicit instructions with his landlady that he was not to be awakened for *any reason whatsoever*.

She followed his orders to the letter. She didn't awaken him in time for church on Sunday! She didn't even arouse him for the inauguration on Monday. She later attested that Mr. Atchison slept all day Sunday and until late Monday afternoon.

In spite of the adventures he was yet to experience and the honors that came to him in later life, David Rice Atchison will always be best remembered for the twenty-four hours he was President of the United States... and slept through his entire administration. ●



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# HEARING IS AS PRECIOUS AS SIGHT HAVE YOU HAD YOUR HEARING TESTED LATELY A SIMPLE COMFORTABLE HEARING INVESTMENT OF A FEW MINUTES


Hearing losses are among the most consistently neglected health problems. Many people with them won't even admit it to themselves, let alone others. A little encouragement may start them thinking about themselves more realistically.

That's why we're offering you the poster shown here. You can hang it on the wall or stand it on a small table. It comes with booklets called "As precious as sight" that give your patients some basic facts about auditory testing and hearing losses and how easy they are to correct in many cases.

Write to us for your free poster and booklets. They just might help you to help some patients who aren't hearing as well as they used to. Even those who ordinarily wouldn't hear of it.

Professional Relations Division, Beltone Electronics Corporation  
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WHEN  
BURNING PAIN  
COMPLICATES  
ACUTE  
CYSTITIS\*

TURN IT OFF WITH

# AZO GANTANOL<sup>®</sup>

Each tablet contains 0.5 Gm sulfamethoxazole and 100 mg phenazopyridine HCl.

## FOR THE PAIN

- Quickly relieves painful symptoms such as burning and pain associated with urgency and frequency.
- Recommended antibacterial therapy: up to 3 days with Azo Gantanol, then 11 days with Gantanol (sulfamethoxazole)

Before prescribing, please consult complete product information, a summary of which follows:

**Indications:** In adults, urinary tract infections complicated by pain (primarily pyelonephritis, pyelitis and cystitis) due to susceptible organisms (usually *E. coli*, *Klebsiella-Aerobacter*, *Staphylococcus aureus*, *Proteus mirabilis*, and, less frequently, *Proteus vulgaris*) in the absence of obstructive uropathy or foreign bodies.

**Note:** Carefully coordinate *in vitro* sulfonamide sensitivity tests with bacteriologic and clinical response; add aminobenzoic acid to follow-up culture media. The increasing frequency of resistant organisms limits the usefulness of antibacterials including sulfonamides. Measure sulfonamide blood levels as variations may occur; 20 mg/100 ml should be maximum total level.

**Contraindications:** Children below age 12; sulfonamide hypersensitivity; pregnancy at term and during nursing period; because Azo Gantanol contains phenazopyridine hydrochloride it is contraindicated in glomerulonephritis, severe hepatitis, uremia, and pyelonephritis of pregnancy with G.I. disturbances.

**Warnings:** Safety during pregnancy not established. Deaths from hypersensitivity reactions, agranulocytosis, aplastic anemia and other blood dyscrasias have been reported and early clinical signs (sore throat, fever, pallor, purpura or jaundice) may indicate serious blood disorders. Frequent CBC and urinalysis with microscopic examination are recommended during sulfonamide therapy.

**Precautions:** Use cautiously in patients with impaired renal or hepatic function, severe allergy, bronchial asthma; in glucose-6-phosphate dehydrogenase-deficient individuals in whom dose-related hemolysis may occur. Maintain adequate fluid intake to prevent crystalluria and stone formation.

**Adverse Reactions:** Blood dyscrasias (agranulocytosis, aplastic anemia, thrombocytopenia, leukopenia, hemolytic anemia, purpura

## FOR THE PATHOGENS

- Effectively controls susceptible pathogens such as *E. coli*, *Klebsiella-Aerobacter*, *Staph. aureus*, *Proteus mirabilis* and, less frequently, *Proteus vulgaris*.

\*nonobstructed due to susceptible organisms

hypoprote thrombinemia and methemoglobinemia); allergic reactions (erythema multiforme, skin eruptions, Stevens-Johnson syndrome, epidermal necrolysis, urticaria, serum sickness, pruritus, exfoliative dermatitis, anaphylactoid reactions, periorbital edema, conjunctival and scleral injection, photosensitization, arthralgia and allergic myocarditis); G.I. reactions (nausea, emesis, abdominal pains, hepatitis, diarrhea, anorexia, pancreatitis and stomatitis); CNS reactions (headache, peripheral neuritis, mental depression, convulsions, ataxia, hallucinations, tinnitus, vertigo and insomnia); miscellaneous reactions (drug fever, chills, toxic nephrosis with oliguria and anuria, periarthritis nodosa and L. E. phenomenon). Due to certain chemical similarities with some goitrogens, diuretics (acetazolamide, thiazides) and oral hypoglycemic agents, sulfonamides have caused rare instances of goiter production, diuresis and hypoglycemia. Cross-sensitivity with these agents may exist.

**Dosage:** Azo Gantanol is intended for the acute, painful phase of urinary tract infections. Usual adult dosage: 2 Gm (4 tabs) initially, then 1 Gm (2 tabs) B.I.D. for up to 3 days. If pain persists, causes other than infection should be sought. After relief of pain has been obtained, continued treatment with Gantanol (sulfamethoxazole) may be considered.

**NOTE:** Patients should be told that the orange-red dye (phenazopyridine HCl) will color the urine.

**Supplied:** Tablets, red, film-coated, each containing 0.5 Gm sulfamethoxazole and 100 mg phenazopyridine HCl—bottles of 100 and 500

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Division of Hoffmann-La Roche Inc.  
Nutley, New Jersey 07110



# DYAZIDE<sup>®</sup>

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Each capsule contains 50 mg. of Dyrenium<sup>®</sup> (triamterene, SK&F Co.) and 25 mg. of hydrochlorothiazide.

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**LOWERS  
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PRESSURE**

**CONSERVES  
POTASSIUM**

Before prescribing, see complete prescribing information in SK&F Co. literature or PDR. A brief summary follows:

### \* WARNING

This fixed combination drug is not indicated for initial therapy of edema or hypertension. Edema or hypertension requires therapy titrated to the individual patient. If the fixed combination represents the dosage so determined, its use may be more convenient in patient management. The treatment of hypertension and edema is not static, but must be reevaluated as conditions in each patient warrant.

\* **Indications:** When the fixed combination represents the dosage determined by titration: Adjunctive therapy in edema associated with congestive heart failure, hepatic cirrhosis, the nephrotic syndrome. Corticosteroid and estrogen-induced edema, idiopathic edema; hypertension, when the potassium-sparing action of its 'Dyrenium' component is warranted.

**Contraindications:** Further use in progressive renal or hepatic dysfunction; hyperkalemia. Pre-existing elevated serum potassium. Hypersensitivity to either component or other sulfonamide-derived drugs. Routine use of diuretics in otherwise healthy pregnancy.

**Warnings:** Do not use potassium supplements, dietary or otherwise, unless hypokalemia develops or dietary intake of potassium is markedly impaired. If supplementary potassium is needed, potassium tablets should not be used. Hyperkalemia can occur, and has been associated with

cardiac irregularities. It is more likely in severely ill patients with urine volume less than one liter/day, the elderly or diabetics, with suspected or confirmed renal insufficiency. Periodic determinations of serum K<sup>+</sup> should be made. If hyperkalemia develops, substitute a thiazide alone, restrict K<sup>+</sup> intake. The presence of a widened QRS complex or arrhythmia in association with hyperkalemia requires prompt additional therapy. Thiazides are reported to cross the placental barrier and appear in breast milk; fetal or neonatal hyperbilirubinemia, thrombocytopenia, altered carbohydrate metabolism and other adverse reactions that have occurred in the adult may result. When used in pregnancy or in women who might bear children, weigh potential benefits against possible hazards to fetus. Adequate information on use in children is not available.

**Precautions:** Do periodic serum electrolyte determinations (particularly important in patients vomiting excessively or receiving parenteral fluids). Periodic BUN and serum creatinine determinations should be made, especially in the elderly, diabetics, or those with suspected or confirmed renal insufficiency. Watch for signs of impending coma in severe liver disease. If spiro-lactone is used concomitantly, determine serum K<sup>+</sup> frequently; both can cause K<sup>+</sup> retention and elevated serum K<sup>+</sup>. Two deaths have been reported with such concomitant therapy (in one, recommended dosage was exceeded, in the other serum electrolytes were not properly monitored). Observe regularly for possible blood dyscrasias, liver damage, other idiosyncratic reactions. Blood dyscrasias have been reported in patients receiving Dyrenium<sup>®</sup> (triamterene, SK&F Co.), and

leukopenia, thrombocytopenia, agranulocytosis, and aplastic anemia have been reported with thiazides. Do periodic blood studies in cirrhotics to check for nondrug-related variations in blood pictures, and in patients with folic acid depletion, since 'Dyrenium' may contribute to appearance of megaloblastosis. Antihypertensive effect may be enhanced in post-sympathectomy patients. Use cautiously in surgical patients. The following may occur: transient elevated BUN or creatinine or both, hyperglycemia and glycosuria (diabetic insulin requirements may be altered), hyperuricemia and gout, digitalis intoxication (in hypokalemia), decreasing alkali reserve with possible metabolic acidosis. 'Dyazide' interferes with fluorescent measurement of quinidine.

**Adverse Reactions:** Muscle cramps, weakness, dizziness, headache, dry mouth; anaphylaxis, rash, urticaria, photosensitivity, purpura, other dermatological conditions; nausea and vomiting, diarrhea, constipation, other gastrointestinal disturbances. Necrotizing vasculitis, paresthesias, icterus, pancreatitis, xanthopsia and, rarely, allergic pneumonitis have occurred with thiazides alone.

**Supplied:** Bottles of 100 and 1000 capsules; Single Unit Packages of 100 (intended for institutional use only).

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codeine phosphate, 30 mg (gr ½),  
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# Editorial Comments

Journal of The Medical Association of The State of Alabama/19 So. Jackson St./Montgomery, Al. 36104

## Alabama Hosting CME "Regional"

On Saturday and Sunday, February 5 & 6, 1977, at the Hyatt House in Birmingham the MASA and the AMA along with the University of Alabama School of Medicine at Birmingham will cooperate in providing a regional continuing medical education program *for the first time*.

Two years ago, the AMA Council on Continuing Physician Education started regional meetings in various parts of the United States. Because they have been quite successful and well attended, the MASA and the University of Alabama invited the AMA to present the program in Birmingham.

The Southern Medical Association and the University of South Alabama College of Medicine have also been instrumental in supporting the development of the February meeting.

There will be four simultaneous courses on Saturday for a total of six hours each and four courses on Sunday, each with a registration fee of \$70 which includes breakfast and luncheon each day. In addition, a Public Speaking Seminar will be held from 9:00 a.m.-5:00 p.m. on Saturday and 9:00 a.m.-Noon on Sunday, the two day course registration fee is set at \$130. Because of unforeseen difficulties, one course scheduled on Sunday, B-6, The Critically Injured Patient, had to be cancelled.

The listing of courses is:

- B-1. Cardiovascular Drug Therapy: An Update
- B-2. Pulmonary Function & Diseases (Environmental Lung Disease: A Physiological Approach)
- B-3. Cardiac Arrhythmias
- B-4. Acid-Base, Fluid & Electrolyte Balance
- B-5. Public Speaking Seminar
- B-7. Proper Selection of Antibiotics (Antibiotic Usage)
- B-8. Acute Renal Failure (Current Advances in Nephrology)
- B-9. Clinical Electrocardiography/1977
- B-10. Financial Management Colloquium

Members of the Association should be now receiving announcements of the meeting through the mail giving all details and course descriptions. Each course will have a complete syllabus providing data for study at home and other useful clinical information. Class size will be limited so that individual attention will be given to questions.

All courses are approved by the AMA Council on Continuing Physician Education for Category I except for B-10 the Financial Management Colloquium is Category II. Students and residents are welcome and they are entitled to 50% discount on course registration fees.

The "regionals" have finally reached our State and based upon passed performance results, the weekend will be one well spent! Make your plans to attend if at all possible. ①

## Medical Schools Find An Intruder

Some obscure but pernicious language in a new federal law is threatening severe difficulties for American schools of medicine.

Stanford and Yale universities are seeking support now to change the law's requirements. Their initiative is welcome.

During final House-Senate conference work on a medical-school assistance bill in September, unprecedented language was inserted. It requires medical schools to reserve places for Americans who were rejected before, and are pursuing their medical studies abroad. The law means that schools could lose their federal grants and loans if they refused to admit some of these previously rejected Americans.

The Administration has not yet drafted regulations to implement this mandate. No proportions or standards have been set. But even the mildest requirement would be an unwarranted intrusion.

Virtually every American medical school is confronted year after year with many more qualified applicants than it has the capacity to accept and train. That some of these rejected applicants seek training abroad is testimony of their pluck and their financial resources. It is no basis for seating the federal government on selection committees.

The issue is emotional and complex. Many schools have established controversial special admission programs to bring in more members of minority groups. Many of these minority students have college records that would otherwise shut them out of medical schools. So some rejected white applicants feel that they are victims of discrimination. That's not quite right, for the sheer numbers of outstanding applicants mean that many well-qualified white would be turned aside whether the special programs existed or not. The expatriates are victims more of competition than of discrimination.

It is appropriate for a school to adjust its policies to help redress years of discrimination. But it is most inappropriate for government to intrude in the details of selection standards that have little to do with questions of discrimination. —Los Angeles Times editorial. Copyright, 1976●

# Letters to the Editor

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## Ochsner Biography

We would be grateful if you can run the following appeal as a letter to the editor.

"For a biography of Dr. Alton Ochsner of Ochsner Clinic, New Orleans, opinions, evaluations, anecdotes, reminiscences, photos are needed. Photos will be carefully handled and returned. All material gratefully received by

Ira Harkey, PhD  
401 Metairie Road, 706  
Metairie, Louisiana 70005"

Sincerely yours,  
Ira Harkey

## Medicaid Dismay

To: Robert L. Holzworth, M.D., Director  
Medical Services Administration  
Montgomery, Alabama

Dear Dr. Holzworth:

Receipt of FP-76-3 and S-FP-1 (Rev. 7-76) is acknowledged with dismay.

FP-76-3 concerns itself with, among other things, a seven percent reduction in fees to be paid to the physician. We readily see that any attempt on the part of any government to underwrite total health care logically can only result in bankruptcy for the government making such an ambitious but naive attempt. We interpret this fee reduction as another covert effort on the part of the bureaucracy to conceal the magnitude of this potential disaster by forcing the practicing physician to finance his own demise.

S-FP-1 (Rev. 7-76) is simply an affront to the intelligence and professional integrity of every physician. You may counter that there are those unscrupulous "providers" who abuse the system, and our reply is that you should not do business with them.

Until FP-76-3 and S-FP-1 are rescinded or made a great deal more palatable, we have decided on the following course:

- 1) We will perform no more sterilization procedures on Medicaid patients.
- 2) We will accept no more new Medicaid patients.
- 3) We are considering phasing out our participation in the Medicaid program altogether.
- 4) We will try to make our voices heard in any place from which we can hope to save ourselves and our fellow Americans from continued intrusions and abuse on the part of the Federal Bureaucracy.

Very truly yours,

Robert J. Henderson, M.D.; William C. Deavor, M.D.;  
Gilbert L. McDonough, M.D., Selma, Alabama.

## Health And Nutrition Examination Survey

The U. S. Public Health Service is preparing to visit Blount and St. Clair counties to conduct the Health and Nutrition Examination Survey of persons aged 6 months through 74 years. The enclosed information describes the survey in full detail. The initial phase will begin on February 7, 1977, with interviewers from the U. S. Bureau of the Census calling on selected households throughout the area to obtain certain demographic information to identify and select about 492 persons for the examination. Examinations will be conducted from February 19 through March 30, 1977, in the survey's mobile examination center.

To assist us in informing physicians about the activities in your area would you please apprise the members of your society about the survey? In addition, if you publish a newsletter or journal, we would appreciate your including a brief description of the program.

The cooperation of the medical profession has contributed to the success of the program in the past. I hope we will be able to rely upon you again. Shortly before we begin actual operations we will send you additional information including the addresses and telephone numbers of our office and mobile examination center. If you have any questions concerning the survey, please contact Mr. Charles Gallese of my staff at 301-443-1626.

Sincerely yours,  
Dorothy P. Rice, Director  
National Center For Health Statistics  
Dept. of Health, Education and Welfare  
Rockville, Maryland 20852 ●

## COST OF MEDICAL PRACTICE SOARS

Soaring inflation, increased malpractice premiums, and higher wages and benefits for employees are the three main reasons it costs physicians more to provide medical service today.

This is the finding of an AMA poll of a cross section of American physicians seeking their opinion on why medical costs are rising and how costs can be contained.

Nine out of ten MDs responding to the survey say that their practice overhead costs have increased in the last three years, with 44 per cent estimating increases ranging between 26 per cent and 50 per cent. Some 42 per cent had increases of 25 per cent or less, while the remainder found their costs going up more than 50 per cent.

Overwhelmingly, physicians (85 per cent) believe that, taking all health services costs into account, *the greatest savings can be effected in hospitals*. Only 6.4 per cent think substantial cost savings could be effected in medical office practice.

The single most important step the doctor can take in his own practice to contain costs is related to reducing malpractice premiums or decreasing the incidence of claims, poll respondents declare. ●





#### Psychiatrists

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Donald C. Martin, CLU, is an expert in the diagnosis and treatment of the special financial problems faced by practitioners in the Alabama area.

Not only does he provide in-depth counseling and professional estate analysis, but also he is qualified to work with your lawyer and accountant in developing the tax-sheltered retirement plans upon which you depend so heavily for your later years.

What's more, Don is known for his proficiency in evaluating the fringe benefit planning needs of professional associations.

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## History Of

# The Medical Association of The State of Alabama

*(Editor's Note: In the March, April and May, 1936, issues of THE JOURNAL, Dr. Cannon's brilliant historical manuscript about the history of MASA appeared. It was entitled "Alabama's Eighty-Nine Years of Medical Organization" and recounted those early years of creation, growth and expansion.*

*The manuscript, of course, carried events up to 1935 and as far as can be determined, the history of MASA has not been updated since that time.*

*Dr. Cannon was a former secretary-treasurer of the Association and served as state health officer from 1928-1929. He passed away December 5, 1962. The Association's prestigious medical reporter award, given*

by  
Douglas L. Cannon, M.D.



*each year to "recognize a reporter who has shown outstanding ability in the reporting of medical news," was named in his honor.)*

1. That from and after the first day of April next, no person shall be allowed to practice physic or surgery, or any other branches thereof, or in any case to prescribe for the cure of diseases for fee or reward, unless he shall have first been licensed to do so, in the manner prescribed.
2. That all bonds, notes, promises and assumpsits made to any person not licensed, the consideration of which shall be for services rendered as a physician or surgeon, in prescribing for the cure of diseases, shall be utterly void and of no effect.
3. That there shall be established five boards of physicians: one at Huntsville; one at the City of Mobile; one at Tuscaloosa; one at Cahawba; and one at Claiborne, to consist of three members each, to be elected by joint vote of both houses of the General Assembly; which boards shall meet annually for the purpose of examining all applicants for a license to practice medicine.
4. That the said boards shall be entitled to receive and demand of every applicant the sum of five dollars for each and every examination; and the sum of five dollars for every license.
5. That the money arising from the examinations shall be applied to the purchase of a medical library for the use of the medical boards, respectively, and their successors in office.

The General Assembly in 1832 amended the act as to exclude from the operation of the law any person "practising medicine on the botanical system of Doctor Samuel Thompson: provided, that if said person....shall bleed, apply a blister of Spanish flies, administer calomel...opium or laudanum, he shall be liable to the penalties of the act."

In the period 1835-1870, additional examining boards were established

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### First in a Series

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"It is almost a quarter of a century," said Dr. George A. Ketchum of Mobile, addressing the Association in annual session, Montgomery, March 15, 1870, "since the first convention of medical men of this State assembled in the City of Mobile, and laid the corner-stone of what has since become 'The Medical Association of The State of Alabama.' The Selma Medical Society was the first to urge upon the profession the need for medical organization. Mobile not only promptly responded, but cordially invited the physicians of the State to meet in convention in Mobile. The invitation was accepted, and the first meeting was held in that city in 1847.

"How well," continued Dr. Ketchum, "do I remember the feelings with which I regarded that assemblage of the physicians of the State! I was young then in the profession of medicine, but already my heart was in my vocation. As I saw those gifted members of the profession, leaving their homes, their firesides, and their personal interests, sacrificing their time willingly and cheerfully, in the

pursuit of measures to elevate their science, and counselling together for means to interpose between suffering humanity and the ills that threaten it, a new estimate of the profession was formed in my mind, new aspirations and promptings filled my soul, and with a heart swelling with honest pride, I renewed my oath of allegiance and devotion to its high behests and purposes."

Thus was recorded something of that historic occasion one might well dwell upon; but, first, let the clock of the years be turned back further still for an insight to events antedating the organization of the Association.

### The First Medical Practice Act

Alabama was admitted to the Union on December 14, 1819. At the fifth annual session of the General Assembly, "begun and held in the Town of Cahawba" on the third Monday in November 1823, Alabama's first Medical Practice Act was adopted, and approved on December 22nd by Governor Israel Pickens. Among other things it provided:



at Montgomery and Demopolis (1835), Livingston (1836), Irwinton (Eufaula) (1837), Florence and Jacksonville, in the County of Benton (Calhoun) (1841), Chambers County (184) and Baldwin, Clarke, Monroe and Washington Counties at Suggsville (1845). In the same year a board was authorized for the Town of Talladega, with Dr. Benton W. Groce a member. A board for Crawford (Russell County) was established in 1846, Tuskegee (1852); Cherokee, Choctaw, Jackson and Russell Counties (1854), Autauga, Dale, Greene, Henry, Perry, Pickens, Pike\* and Shelby Counties between 1855 and 1858; Coffee, Coosa and Franklin Counties in 1860; St. Clair (1861); Elmore, Hale, Jefferson and Marshall Counties (1867), Lee County in 1868 and Lawrence in 1870.

In 1861 the General Assembly granted to governing bodies of counties the right to establish medical boards "where no boards exist."

#### Dentists Included In The Act

By an act of the Legislature of 1841, approved December 31st, it was made the duty of medical boards to examine and license applicants to practice dental surgery. "It shall be the duty of each of the medical boards," said the act, also, "where the same is practicable, to add to their body, by election, a professional dentist having the requisite qualifications." It was not until 1881 that a Board of Dental Examiners was created as an entity separate and apart from medical examining boards.

#### Early Medical Societies

##### Medical Society of South Alabama

The Medical Society of South Alabama was declared, on January 30, 1839, to be "a body corporate" and constituted the Medical Board at Selma. Two years later the powers and privileges of this board were "transferred to and vested in" the Alabama Medical Society, provided for in act



Josiah C. Nott, M.D.



William O. Baldwin, M.D.



J. Marion Sims, M.D.

approved April 28, 1841. The act set forth, in part, that the Alabama Medical Society is "a body corporate and politic, by the name and style of the Alabama Medical Society, and under this name shall have perpetual succession of officers, sue and be sued, plead and be impleaded, and have a common seal with power to change or alter the same at pleasure." Power was given to adopt a constitution and by-laws; and "to hold by purchase, gift, grant, or otherwise, property, real, personal and mixed, not exceeding in value \$60,000.00...The members of this Society shall be known and styled, Fellows of the Alabama Medical Society."

##### The Selma Medical Society

It is the author's opinion that though the Alabama Medical Society was intended to be a statewide organization, it was, in reality, the Selma Medical Society. Indeed, it was so known after January 28, 1867 because of legislation entitled, "Charter of Alabama Medical Society Revised." Said the Legislature: "The charter of the Alabama Medical Society shall not be deemed and held forfeited on account of any failure on the part of said Society to do and perform such acts as may have been required of them by the charter under which they are made a body corporate...All powers and privileges are revived and affirmed...and the name changed to the Selma Medical Society."

##### Mobile Medical Society

On December 21, 1841, Drs. Solomon Mordecai, John H. Woodcock, Henry S. Levert, Josiah C. Nott, and

their associates and successors, of the Mobile Medical Society were granted articles of incorporation and authorized to adopt a constitution and by-laws, and to appoint annually five members to examine all applicants for license to practice medicine in the County of Mobile. "Said Society shall be required to carry into effect such ordinances as the corporation of the City of Mobile may adopt in regard to it...to organize a Board of Health and procure necessary information and advice upon the subject of the health of the city."

The Society was incorporated a second time on February 23, 1866, Drs. George A. Ketchum and Josiah C. Nott being named among the incorporators.

##### The Society In Montgomery

The Sydenham Medical Society of Montgomery was incorporated by Act of the Legislature approved February 1, 1850, Drs. William M. Bolling, B. Rush Jones, Henry M. Jackson, William O. Baldwin, Matthew Bozeman\* and J. Marion Sims being those referred to in the enabling legislation. "Any licensed physician shall be entitled to admission" to the Society "unless three or more members object."

The Society was incorporated again on February 8, 1866 as the Medical and Surgical Society of Montgomery. Drs. W. O. Baldwin, J. F. Johnston,

\*It is of interest to note that the General Assembly of 1867 decreed that Wilson McLemore of Pike County was authorized to charge and collect by law all proper charges and fees for curing cancers, all laws now of force to the contrary notwithstanding.

\*The writer wonders if this was not intended for Dr. Nathan Bozeman, who established his residence in Montgomery in 1849 and manifested great interest in the Association for several years prior to his removal to New York.

T. R. Hill and R. F. Michel, the incorporators, were authorized to examine applicants seeking certificates of qualification to practice medicine, and to organize a board of health.

### Medical Colleges Authorized

#### At Wetumpka

By an act of the Legislature of 1845, James M. Hill, John A. Reynolds, Warren S. Williams, et al, were named trustees of the Alabama Medical University and authorized to establish a medical college in the Town of Wetumpka. Two full courses of lectures were to be given; or a student might engage in one full course in said college and one in "some respectable medical college," whereupon the degree of Doctor of Medicine was to be conferred if the student had spent the usual time in private instruction required by other medical institutions.

The succeeding Legislature granted the Board of Trustees authority to establish said university either at Wetumpka or "any other city, town or village in the State of Alabama as the interest of medical and surgical science may demand."

#### At Montgomery

Legislation incorporating a medical college of the State of Alabama at Montgomery was approved December 20, 1849. "A board of trustees and professors....are hereby established and declared a body corporate under the style and title of 'The President, Trustees and Faculty of the Medical College of Alabama at Montgomery'....The said board shall consist of eleven members, viz: Francis Bugbee, Chas. T. Pollard, E. Y. Fair, Robert J. Ware, Silas Ames, A. B. McWhorter, H. W. Henry, Samuel D. Holt, James Berney, John McLester, and William H. Reeves, who shall elect a president from among themselves."

It is not known to the writer that either of the above colleges ever functioned; not that incorporated February 20, 1866 as the Southern Medical College at Greenville; not the Alabama College of Physicians and Surgeons, and the Charity Hospital at Montgomery provided for in legislation approved January 31, 1866.

#### At Graffenberg

Dr. P. M. Shepard, the great grandfather of Mrs. James L. Jordan, of Huntsville, President in 1935-36 of the Woman's Auxiliary to the Association, owned and operated the Graffenberg Medical Institute of Alabama, near Dadeville, in Tallapoosa County. He, Drs. James T. Shackelford, Wm. W. A. Mitchell and J. T. Banks were constituted a Board of Trustees by the General Assembly of 1852, and empowered to grant diplomas, confer degrees and licenses upon all persons, who, on examination, should be found proficient in all branches of medical sciences as taught in that day. It is recorded that cadavers, for instruction in anatomy, were procured from New Orleans, shipped in syrup barrels.

#### At Mobile

The Legislature of 1856 on January 24th passed over the Governor's veto to an act establishing the Alabama Medical College at Mobile. It was organized in 1859 and incorporated January 30, 1860 as a department of the University of Alabama. "Classes were graduated in 1861 and subsequent years, excepting 1862-68. It was reorganized in 1897 as the Medical Department of the University of Alabama. The present title (The School of Medicine of the University of Alabama) was assumed in 1907, when all property was transferred to the University of Alabama. In 1920 clinical teaching was suspended and the school removed to the campus in Tuscaloosa"\* where it is in operation now.

#### At Birmingham

"The Birmingham Medical College, at one time affiliated with the State University, was organized in 1894, graduated its first class in 1895"\* and ceased to operate in 1915.

### The Association In The Fifties

Of the meeting for organization in 1847 (referred to in the opening

paragraph) there are no minutes available; nor does it appear that records were preserved of the sessions of 1848 and 1849. When Dr. Ketchum, in 1851, said, "we have given a volume of transactions to the world that we may be justly proud of as a first attempt and as a prestige of what we may do in the future," he undoubtedly referred to the proceedings of 1850, though even this volume is not in the archives of the Association. However, from 1851 to date the printed record of achievement is unbroken.

Dr. Ketchum, in addressing the session of 1851, meeting in the Supreme Court Room of the Capitol in Montgomery, December 8-11, said: "What sources of congratulation have we, as members of the Alabama State Medical Association?\*" We have drawn to the close of its fifth annual session; we watched with care its earliest organization, and nursed it through the trying season of its infancy. It has now become a chartered and incorporated body, exerting a decided influence on the professional throughout the State. It has openly avowed its claims to consideration and importance in the legislative halls, and its appeal is too manly, too heavily laden with the best interests of all to be passed by unheeded in that deliberative body...Embarking as we did when we were beset by difficulties, we have guided our ship through the most perilous and intricate passage of its career, and we may now reflect with pride upon its secure position....We see the kindling enthusiasm, the increasing interest which begins to beautify the medical horizon as a bow of promise for the future. We see the counties of our State organizing their medical societies and combining in something like united action in advancing the standard of our noble art...We see the communities in which we live watching with eager interest these organizations of medical men, and they have cause to congratulate themselves that

\*Quoted from the Bulletin of the State of Medicine of the University of Alabama, 1935.

\*It will be noted, in a subsequent paragraph, that the legal name of the Association is "The Medical Association of The State of Alabama."



the men into whose hands they expect to commit their lives are earnest in their endeavors to attain professional excellence, and daily giving evidence that they have a higher claim to their esteem and confidence than the impudent advertising quack who fills the public papers with the proof of his charlatanism and the grave with the victims of his ignorance."

## The Association Incorporated

It was on February 13, 1850 that The Medical Association of The State of Alabama became a chartered body. "Be it enacted by the Senate and House of Representatives in General assembled," said the incorporating act, "that A. Lopez, J. Marion Sims, N. L. Meredith, Thos. W. Mason, J. A. English, T. A. Bates, W. B. Johnson and H. M. Jackson, and their associates and successors of The Medical Association of The State of Alabama are hereby instituted a body corporate under the name and style of 'The Medical Association of The State of Alabama';...that said Association is empowered to adopt a constitution and pass such by-laws as may be deemed necessary for its good government...; that the members...shall be known and styled 'Fellows of The Medical Association of The State of Alabama.'"

The Association early interested itself in the establishment of an asylum for the insane of the State, Dr. A. Lopez, Chairman of the Committee delegated to memorialize the Legislature on the subject, reporting in 1851 that the matter was likely to receive action in the General Assembly then in session. The hospital was actually authorized February 6, 1852; and on July 6, 1860 Dr. Peter Bryce became its first superintendent and served for a period of thirty-two years.

Selma was host to the Association in 1852. Dr. Jno. P. Barnes reporting for Mobile County on the number and character of practitioners of medicine in that political subdivision listed regular practitioners 40; homeopaths and hydropaths 2; root doctors and Thompsonians 3; general quackery 3; idio-eclectopaths one—

a total of 52. In thus citing the situation Dr. Barnes added that "the Association will perceive what a deplorable state of things prevail in our city....; and it is the more unfortunate for scientific men that they (irregulars) can, with their numerous pretensions, secure the confidence and slay a multitude of the inhabitants, all of which is laid at the door of the 'regular practitioners.' It is to be wished, and most devoutly too, that our professional brethren will exert themselves to alleviate our condition in this respect; if not by memorializing the Legislature (which we have found to be ineffectual)...by maintaining that respect...which will at once forbid the advance of charlatanism and empiricism among us..." History reveals it was twenty-two years later that the State's lawgiving body took cognizance of the situation and instituted steps to correct it.

Meeting scheduled for the second Monday in December 1853, at Montgomery, did not convene until January 10, 1854. Annual oration was delivered by Dr. Lopez, who selected the theme, "The Mutual Relations that Should Exist Between the Representatives of a Commonwealth and its Medical Men." "I come, then," said the speaker, "to join in bonds of holy wedlock the sciences of medicine and legislation. The people's safety is the highest law...I seek to bring together the people and their lawgivers, through the mediation of those to whose special guidance so great a share of that safety is confided. I desire to unite to the labors of medical men, devoted to the physical preservation of the State, the earnest and effective cooperation of the people's agents, in order that the State may reap the benefit of her subjects, under the endowment and possession of powers suited to confer labor, productiveness and protection, as reciprocal influences between two parties so essentially dependent one upon the other." This, it seems to the writer, was a winged shaft Dr. Lopez hoped would find its mark. We who have been privileged to watch its course through time believe it did in fullest measure, as subsequent events to be related bear witness.

The Association returned to Mobile



Peter Bryce, M.D.

for its 1855 session which proved to be the last until 1868. The following resolution was adopted:

*Resolved, That Dr. J. Marion Sims, of New York, formerly a Fellow of this Association, and now an Honorary Member, be requested to communicate, for publication in our transactions, an account of his improved operation and apparatus for the cure of vesico-vaginal fistula, rupture of the perineum, etc., together with such other surgical operations as he may find convenient."*

Fellows of the Association numbered 149 at this time, and included Drs. W. O. Baldwin and N. Bozeman of Montgomery; A. Denny of Suggsville, W. P. Reese of Selma; and E. P. Gaines, J. F. Heutis, G. A. Ketchum, A. Lopez and F. A. Ross, Mobile.

## The Association Is Revived

For reasons that are apparent to the reader, the Association lay dormant after the session of 1855 until the reorganization of 1868. In that year "pursuant to a call issued by the Selma Medical Society during the latter part of 1867, delegates from the Selma Medical Society, the Greensboro Medical Society, the Montgomery Medical and Surgical Society, and the Mobile Medical Society, together with other medical gentlemen from various parts of the State, met in the City of Selma, at 3 o'clock P. M., on the 3rd day of March 1868, for the purpose of reorganizing The Medical Association of The State of Alabama.

"On motion of Dr. W. P. Reese, of Selma, a temporary organization was effected by calling to the chair Dr. F. A. Ross, of Mobile, and to the





The Problem Of

# Rising Hospital Costs

By John Alexander McMahon, President, American Hospital Association.

Delivered before the AMA Commission on the Costs of Medical Care, Sept. 29, 1976.

Rising health expenditures are everyone's problem, and each of us must be involved in finding practical solutions. Without the active involvement of hospitals, physicians, third parties, employers, unions, and the entire American public, I doubt that any such answers will be found. That's what makes this type of meeting so encouraging—we're all represented.

I'm going to talk about the largest and most visible single block of health spending—hospital expenditures. Basically, I want to address myself to four questions: Why are hospital costs rising? What kinds of controls are being proposed? What can each of us—hospitals, physicians, third parties, employers, unions, and the entire public—do voluntarily to have a positive impact on the rate of hospital cost increases?

**Why are hospital costs rising?** The answer can be broken down into three major parts: changes in the costs of the inputs of care, changes in hospitals' product ("Health care"), and the myriad of government regulations and laws which add to hospital expenditures without necessarily improving health care. The prices of goods and wages in the economy as a whole have continued to rise, and hospitals must pay more for the people and things they need to provide care. This is compounded by the fact that the unique market basket of things the hospital must buy includes many items with costs rising faster than the overall cost of living. Hospitals' product, meanwhile, has undergone an almost "miraculous" change as new technologies, procedures and equipment widen the range of illnesses we can treat and cure. However, the hospital's and physician's abilities to work "miracles" has also increased the public's expectations of what should be done.

**What kinds of controls are in place?** Generally, there are three kinds. Capital expenditure controls (i.e. planning and certificates-of-need) and utilization controls (i.e. PSROs) can provide long-range cost savings if they are adequately funded and properly implemented. Washington officials are increasingly turning to expenditure controls, which seem to have a more immediate impact, but do not necessarily deal with the factors which contribute to higher hospital costs. PSRO's and planning, however, offer the possibility of a genuine impact on rising costs over time.

**What kinds of controls are being proposed?** Expenditure controls are basic to at least two proposals being discussed in Washington. The Administration's caps on payments to hospitals and physicians, and the Rostenkowski proposal take this approach. S. 3205 is more complex, but it may be a more sound and important alternative.

**What else can each of us do?** Hospitals, physicians, third parties, employers, unions, and the public hold the real key to moderating future hospital cost increases. Hospitals can do only so much, because the factors which stimulate public demands for and expectations of the medical care system are not entirely under our control. This is a fact which we must stress in our discussions because in the final analysis, each of us must accept our own responsibilities for contributing to the problems, and for finding solutions. ●

## PHYSICIAN PRACTICE EXPENSES AND PHYSICIAN FEES\*

### Overview

Concerns over the rising costs of health care have focused attention on the costs of providing physician services. In 1974 for example, of the \$118.5 billion spent on health care in the United States, \$22.1 billion, or 18.6 percent, was spent on physicians' services. Typically, discussions of these numbers focus on the consumer, addressing questions of availability, accessibility, and quality of physician care. Given that the ultimate goal of any health care system is the provision of adequate medical services, such a focus is readily justifiable. However, for both analytical and policy purposes, additional insights into the health care system can be gained by viewing expenditures for physicians' services from the perspective of the physician. In particular, the links between practice expenses, expenditures for physicians' services, and health care costs merit careful examination.

### Trends in Practice Expenses Examined Over Time

A time-series analysis provides a general overview of recent trends in practice expenses. Data are from the AMA's Periodic Survey of Physicians, (PSP) and the Consumer Price Index (CPI). In the period 1966-74, mean total expenses (PSP data) increased at a rate of 9.5 percent per year compared to an increase of 5.4 percent per year for the CPI all items index. From 1971-74, however, mean total expenses (PSP data) increased less per year than the CPI all items index (5.2 percent compared to 6.8 percent). Also in the period 1966-74, the yearly rate of practice expenses per visit (PSP data) increased at an 8.3 percent

CONTINUED ON PAGE 51

\*Presented by the AMA Center For Health Services Research and Development at the September 29, 1976, meeting of the Commission on the Cost of Medical Care.

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# Conventional Versus Preventive Medicine

by  
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and  
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## Introduction

In the final analysis, a logical and fruitful discourse on conventional medicine versus preventive medicine must be predicated upon general agreement regarding definitions of [1] *the nature of prevention*, and [2] *the genesis of health and disease*.

### The Different Definitions of Prevention

For pragmatic purposes and as an immediate working hypothesis, *preventive* medicine may be defined as the clinical discipline designed to *anticipate* disease in man<sup>1</sup>. The intent, by such an approach, is to foretell illness before it erupts in its *classical* form.

Notwithstanding this etymologic analysis, in actual practice there are *two* different types of prevention. Figure One pictorially portrays the two faces of the problem. First, it will be noted that, with advancing age, shown on the abscissa, there is progressive disease described on the ordinate. This point is clearly shown by the oblique line rising from left to right labelled as the *natural course* of events. It is sometimes possible with proper therapy to bend the line minimally and thus slow the process. Occasionally, the line may be more diverted so as to arrest or stop the problem. Finally, in some instances, the pattern is actually reversible. All of these three sequences on the right have a common denominator and are collectively referred to as *secondary prevention* or *prevention of recurrence*. On the other hand, it is conceivable to anticipate the problem much earlier in life so that one subtends an angle of zero and thus actually effects *primary prevention* or *prevention of occurrence* as indicated on the left. Clearly, the latter is the ultimate goal and the frame of reference for this report.

The discipline of preventive medicine is not new. For example, Hippocrates recognized that, in the female, there was a striking positive parallelism between obesity, menstrual aberrations, and sterility. Since that time and

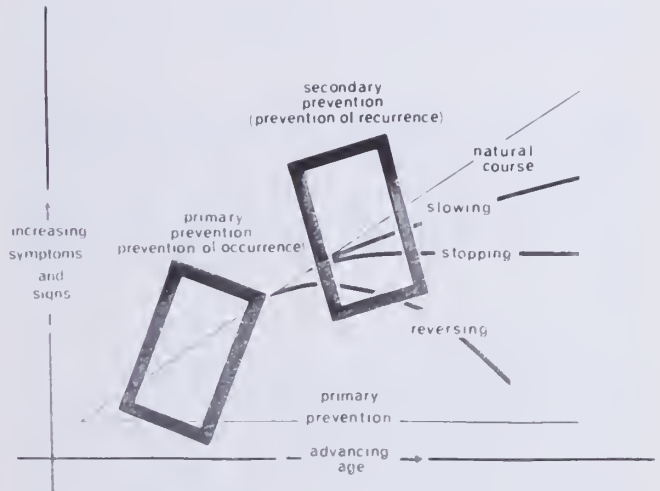


Figure One. The two types of prevention. The slowing, arrest, or reversal of the disease process collectively signifies secondary prevention or prevention of recurrence. In contrast, when one subtends an angle of zero, so that the usual rise of symptoms and signs does not occur, then primary prevention or prevention of occurrence follows.

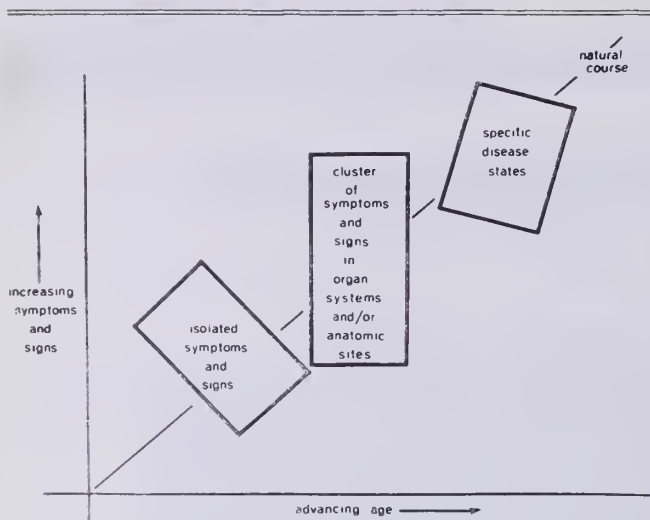
continuing right up to the present, there are scores of publications designed to underline the prognosticative worth of many and diverse clinical, biochemical, social, psychologic, and economic parameters with regard to different disease states.

### The Genesis of the Disease Process

All disease is preceded by an incubation period<sup>2</sup>. In the instance of acute mechanical trauma such as an automobile accident, the incubation time is clearly too brief for predictive purposes. In the case of acute infectious disorders such as the measles, the incubation period is somewhat longer, approximately ten days, and more significant from a prognosticative standpoint. With chronic disorders, like a myocardial infarct, cerebrovascular accident, rheumatoid arthritis, or periodontal disease, the incubation time extends for months and frequently over several years or decades. Obviously, the longer the incubation period, the greater the opportunity to *anticipate* the end problem and, hopefully, abort the process. In order to effect *primary prevention* or *prevention of occurrence*, it is

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**Figure Two.** The clinical sequence of events in chronic disease. At first, there are few and diverse symptoms and findings [box on the left]. With time, the findings become more numerous and localized in a system or organ [middle box]. Finally, the clinical evidence fits the textbook picture of a particular disease or syndrome [box on the right].

necessary to analyze the sequence of events which eventuates in the classical disease syndrome.

Initially, the patient notes only few and seemingly unrelated findings [Figure Two]. There may be irritability, for example, associated with leg cramps which would be fitted into the box on the left. Because these apparently unrelated symptoms and signs do not fit any textbook description of a particular well-defined disease, the complaints are either ignored, assigned a meaningless label, or regarded as a minor psychic problem and treated symptomatically. Parenthetical mention should be made that the latter diagnosis is frequently made by exclusion. In other words, a failure to relate the signs and symptoms to classical disease nomenclature usually results in the decision that the problem is likely an emotional one.

If the clinical situation just described continues as it so often does, then the number of symptoms and signs progressively multiplies. This is the center box. Sooner or later, the findings begin to crystalize in systems, organs, or in localized sites. For instance, a subject may find himself with several gastrointestinal complaints such as indigestion, anorexia, and hemorrhoids. At this stage, the constellation is still not classifiable with textbook disease terminology. Hence, treatment is usually symptomatic and/or the patient is advised that the problem should be under observation. If many organ systems and/or anatomic sites are involved, the syndrome might be ascribed a psychologic etiology. Finally, and this is the box on the right, when the syndrome is clearly identifiable in terms of its classical description, then the illness is assigned a label. *In conventional medicine, it is only at this point that a diagnosis is usually deemed justifiable.*

As one proceeds from the box on the left towards the box on the right, the *identification* of disease becomes easier. *This is the goal of conventional medicine.* As one moves from the right to the left box, the *anticipation* of

disease increases. *This is the purpose of preventive medicine.* Phrased another way, the concern of conventional medicine is *disease*; the denominator in preventive medicine is *health*.

### Health Versus Disease Detection

There are presently in operation over one hundred *alleged* health programs in the United States of America. A number of examples come to mind to underline the basic distinction between the fundamentals of *preventive medicine* versus existing *health evaluation systems*.

For instance, there is no question regarding the desirability of a periodic vaginal Papanicolaou smear for the detection of gynecologic cancer. The hope, always, is that the smear will prove to be negative. Obviously, this testing technique is to be applauded, and women should be encouraged to undergo this periodic checkup. In the event that the results are negative, the patient is requested to return at a later date [usually in six to twelve months depending upon age] for another *health*, as it is usually phrased, checkup. There is no question but that periodic reexamination is desirable. At each revisit the hope prevails, by both the patient and the doctor, that the smear will continue to prove negative. This is also admittedly by a commendable goal. Unfortunately, sooner or later, the smear is positive. Hence, it becomes necessary in present conventional medicine to institute surgery and/or irradiation. This, again, is desirable since all will concur that *early* detection and treatment prove more successful and yield a better prognosis than cancer recognition and therapy in later stages.

There is, in the sequence just outlined, one serious semantic trap with significant practical overtones. While all that has been described is to be applauded as a demonstration of *therapeutic* medicine, the one point overlooked is that the procedure is *not* a *health examination* but rather a *disease detection* program.

Ideally, in this particular illustration, a *true* health examination commences with the patient's showing a negative smear. Additionally, this evaluation should allow the opportunity to point out to the patient her degree of cancer proneness. Finally, a true health appraisal should include proper counsel so that the patient is provided with whatever information is available to *reduce* the risk of cancer. Hence, it is obvious that the traditional *health examination* is, in fact, a *disease detection* program. There is a justifiable niche for such a conventional system in present-day medicine. However, there is also a crying need for a *true health evaluation and maintenance program*.

Proneness profiles, designed to *anticipate* rather than to *identify* disease, are now being developed<sup>3</sup>. A discussion of two such experimental models will be the theme of the remainder of this report. One, the *coronary proneness profile*<sup>4</sup>, has been extensively studied and now allows great predictive potential. The other, a *mental illness* proneness profile<sup>5</sup>, is much more recent and has been less investigated. Since it is still in the process of development, its predictive worth is limited.



## Coronary Proneness Profile

It is abundantly evident that coronary artery disease is epidemic today in the United States. For example, the possibility of a heart attack in presumably healthy male subjects before the age of sixty is about twenty per cent. The incontestable need for primary prevention, that is, prevention of occurrence, is heightened by the facts that [1] acute mortality approaches forty per cent, and [2] half of this latter group or about twenty per cent of first attacks terminate in death within sixty minutes after the initial symptoms and signs appear. Clearly, it is imperative to perfect and activate a *primary* prevention treatment program. Such a profile is a function of a number of already-identified parameters including [1] age and sex, [2] serum lipids, [3] blood pressure, [4] weight, [5] blood glucose, [6] uric acid, [7] diet, [8] tobacco consumption, [9] physical activity, [10] electrocardiography, [11] family history, and [12] personality structure.

## The Mental Illness Proneness Profile

There is no question but that, in the field of proneness profiles, more energy and money have been expended to study coronary artery disease than any other single syndrome. It is, therefore, not at all surprising to find that the coronary proneness profile is more complete and has greater utility than any other profile.

Limited work is being carried on in other areas. It follows, hence, that the end-results are more incomplete. However, for purposes of this discussion, brief mention should be made of one such program.

Four interdependent points serve as a justification for and the prelude to this portion of the report.

First, the evidence is abundantly clear that mental illness is one of the biggest disease problems in the United States of America today. For example, almost half of all hospital beds are occupied by patients with mental syndromes. Data from the National Health Survey indicated that an estimated twenty million adults have either had a nervous breakdown or have experienced an impending nervous collapse.

Second, the therapeutic armamentaria presently employed for mental illness include few chemical agents other than those designed for the symptomatic care of depression and excitement. Phrased somewhat differently, the cardinal therapeutic emphasis today rests upon various psychoanalytic techniques though the evidence indicates that the success factor by these methods, under the most ideal circumstances, leaves much to be desired.

Third, the fundamental problems in treating mental illness are not particularly different than those encountered in other areas. For example, coronary artery disease is also recognized to be of epidemic proportions. Additionally, it is now granted that the present therapeutic approach can never resolve the problem. Thus, there is increasing interest in *primary* prevention, meaning *prevention of occurrence*. Because of this preventive concern, there is now available a *coronary proneness profile* of considerable effectiveness.

Finally, there is now an increasing interest in orthomolecular therapy for certain psychiatric and quasi-psychiatric disorders.

For these and many other reasons, it would be extremely helpful to develop a *mental illness proneness profile*.

Approximately six hundred health practitioners and their wives have been participating in a multiple testing project for one to seven years. The common denominator is that these subjects are members of the health professions interested in studying their own health patterns. As far as can be determined, no one in the group can be regarded as suffering with a classical psychiatric disorder requiring psychotherapy.

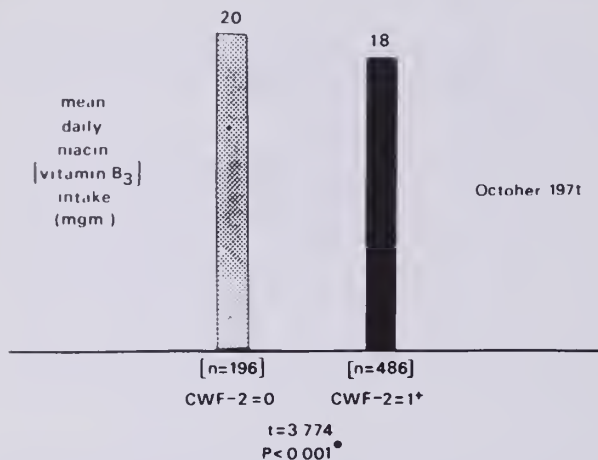
On an annual basis, the group is studied clinically, electrocardiographically, biochemically, and nutritionally. Each subject, once a year, has completed the Cornell Medical Index Health Questionnaire and the Cornell Word Form-2 which are here employed for psychometric purposes. At each of these visits each subject also completed two dietary forms.

The Cornell Medical Index Health Questionnaire [CMI] is a list of 195 questions followed by two responses, yes and no. The subject is asked to choose the response he or she thinks is appropriate. If in doubt, the subject is asked to guess. The CMI, as it is abbreviated, has been devised as an instrument for quickly obtaining a descriptive sketch, for clinical interpretation, of a person's attitudes, moods and feelings, emotions, and bodily reactions. A medically significant emotional disturbance may be suspected when three or more affirmative responses appear in sections M through R of the CMI. Although there are other diagnostic criteria in the CMI for suspecting an emotional problem, only the M-R affirmative responses will be considered in developing the mental illness proneness profile.

Each subject also completed the Cornell Word Form-2, abbreviated CWF-2. This questionnaire is a modification of the ordinary type of individually administered word association technique in that it is a "forced choice" method. The subject is presented with a list of stimulus words, each followed by two other response words. The patient is asked to choose the one he or she thinks relates better with the stimulus word. The CWF-2 has been devised as an instrument to make quickly a descriptive clinical sketch of an individual's emotional status from responses relating to attitudes, feelings, moods, and bodily reactions. It has been devised to do so in a manner not readily discernible to the subject in order to increase the degree of objectivity. A word form score of eight or more screens between 40 and 50 per cent of those persons with serious neuropsychiatric and psychosomatic disturbances and a few ostensibly healthy persons. A score of five or more screens between 70 and 80 per cent of those with serious neuropsychiatric and psychosomatic disturbances and a moderate number of ostensibly healthy persons. While the assessment techniques vary, there is a significant relationship.

At each visit, each subject also completed two dietary records. One consists of recording all foods consumed for a seven-day period. The chart is then submitted to a computer center and a printout becomes available outlining

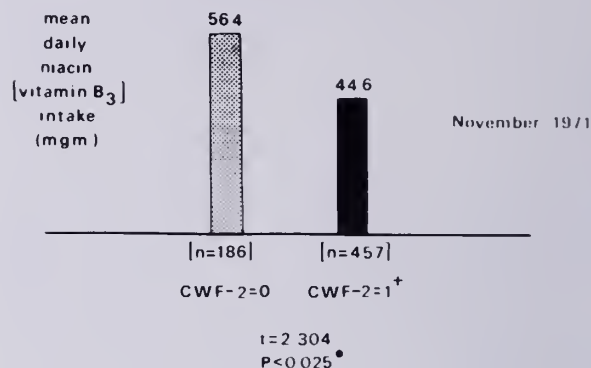
relationship of psychologic state [CWF-2] and daily niacin [vitamin B<sub>3</sub>] consumption [seven day dietary survey]



\* statistically significant difference of the means

Figure Three. The relationship of psychologic state as judged by the CWF-2 score and daily niacin [vitamin B<sub>3</sub>] consumption as measured by the seven-day dietary record. Niacin must be viewed as a resistance agent since those subjects consuming the greater amount of niacin tend to have fewer psychologic findings.

relationship of psychologic state [CWF-2] and daily niacin [vitamin B<sub>3</sub>] consumption [food frequency questionnaire]



\* statistically significant difference of the means

Figure Four. The relationship of psychologic state as measured by the CWF-2 technique versus daily niacin [vitamin B<sub>3</sub>] consumption by the food frequency method. The subjects with the greater number of psychologic scores consume the lesser amount of niacin, making vitamin B<sub>3</sub> a resistance agent.

the daily intake of all of the major foodstuffs as well as the most common vitamins and minerals. A second form, called the Dietronics Dietary Analysis, is a simple questionnaire designed to determine the dietary habits based upon a food frequency technique. This dietary form is also submitted to a computer center and a printout is derived spelling out the daily intake of the major foodstuffs and the vitamins and minerals.

In the final analysis, what eventuates as health or disease is a function of the world we live in [commonly referred to as the seed] and our capacity to live in the world [popularly referred to as the soil]. Actually, it is frequently much more practical to alter the individual to live in the world than it is to make the world consonant with the individual. In this connection, *host resistance* and *susceptibility* become of major import. These terms may be viewed in two different ways. From a *descriptive* standpoint, resistance and susceptibility are simply antonyms. Hence, in this frame of reference, it matters little whether a patient succumbs because his resistance was low or his susceptibility was high. On the other hand, from an *analytic* standpoint, these terms take on entirely different meaning. A *resistance* agent is one which, when administered, tends to *discourage* disease and when absent encourages disease. For example, vitamin C must be viewed as a resistance agent by this definition since its addition discourages scurvy. In contrast, a *susceptibility* agent *invites* disease when present and discourages disease when it is absent. Sugar is a susceptibility agent, for example, since it encourages dental caries. In other words, *resistance* agents may be viewed as *pluses*; *susceptibility* agents must be regarded as *minuses*. In the final analysis, health follows when the pluses are in abundance and the minuses are at a

minimum. Disease occurs when the pluses are few and the minuses are many.

Without question, major effort is presently being directed toward the relationship of vitamin B<sub>3</sub>, that is, niacin, to schizophrenia. This is a logical outcome of the history of pellagra and its relationship to vitamin B<sub>3</sub> and its precursor, tryptophan. An analysis of the relationship of daily niacin consumption to *marginal* psychologic findings supports the general research pattern.

Figure Three is designed to study the relationship of psychologic state [as measured by the Cornell Word Form-2 score] versus daily vitamin B<sub>3</sub> [niacin] consumption in milligrams [as judged by the seven-day dietary survey]. Three points warrant special mention. First, the mean daily vitamin B<sub>3</sub> intake in the group with the better psychic state on the left [as determined by a CWF-2 score of zero] is 20 milligrams. This is illustrated by the stippled column. In contrast, the vitamin B<sub>3</sub> daily consumption in the CWF-2 group with one or more pathologic responses is 18 milligrams, shown by the black bar on the right. This is a 14 per cent difference in the two groups. Second, the niacin intake in the group with the poorer psychologic score is lower on a mean basis. Thus, by earlier definition, niacin is to be viewed as a resistance agent since, when added, it tends to discourage disease. Third, the difference between the two groups is statistically highly significant as judged by a  $t = 3.774$  and a  $P < 0.001$ .

Additional study corroborates the observations just made utilizing a different dietary survey, the food frequency questionnaire, and the same psychometric technique, the CWF-2 score. Figure Four pictorially relates the relationship of psychologic state as measured by the Cornell Word Form-2 versus a different dietary appraisal, the food



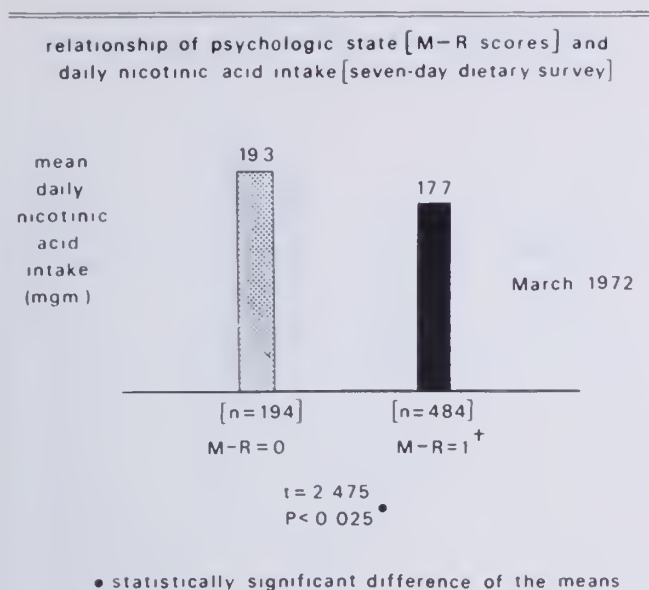


Figure Five. The relationship of psychologic state, as established by the M-R question sections versus daily vitamin B<sub>3</sub> intake measured by the seven-day diet survey. The group with the positive M-R responses consumes the lesser amount of vitamin B<sub>3</sub> making vitamin B<sub>3</sub> a resistance agent.

frequency approach, for vitamin B<sub>3</sub>. It will be noted that the group with no pathologic scores, the stippled column on the left, consumes statistically significantly more vitamin B<sub>3</sub> than the group with one or more pathologic responses, the black column on the right. It is true that the vitamin values in this chart versus the last illustration are different since the food measuring methods are different. For example, the food frequency questionnaire is programmed for intake via vitamin-mineral supplements. However, it is clear that the *patterns* are strikingly similar.

Finally, Figure Five relates psychologic state by a different psychometric device, the M-R score on the Cornell Medical Index Health Questionnaire, versus the nicotinic acid consumption from the seven-day dietary survey. It will be noted that the group with the better psychic state, M-R score of zero on the left, shows the higher nicotinic acid pictured by the stippled column. The point of the story is that niacin [vitamin B<sub>3</sub>] tends to behave as a resistance agent in the *genesis* of emotional symptoms and signs as judged by several different methods of analysis.

Much has been written to indicate that single dietary deficits are rare if not nonexistent<sup>6</sup>. There are countless dietary interrelationships, and it is virtually impossible to produce a single vitamin deficit with all other vitamin fractions in the optimal state. Hence, it becomes advisable to ascertain whether other dietary fractions may also serve as resistance or susceptibility agents in the mental illness proneness profile.

Shown [Figure 6] is an outline of the relationship of the CWF-2 scores in terms of all nutrients studied by the seven-day dietary survey technique. Additionally, the point should be made that the nutrients have been arranged in

the mental illness proneness profile [CWF-2 scores]		[dietary analysis]*			
December 1971 dietary parameter	CWF-2 scores		per- centage differ- ence	t	P
	0	1+			
iron	14.5	12.8	12	4.477	<0.001**
iodine	0.061	0.049	21	3.985	<0.001**
niacin	20	18	14	3.774	<0.001**
phosphorus	1.451	1.315	9	3.519	<0.001**
vitamin B <sub>1</sub>	1.06	0.94	12	3.411	<0.001**
vitamin B <sub>2</sub>	1.90	1.68	12	3.223	<0.005**
fat	106	97	9	3.116	<0.005**
base	30.5	27.3	11	3.024	<0.005**
animal protein	82	75	9	3.010	<0.005**
refined carbohydrates	62	71	14	2.982	<0.005**
vitamin C	148	128	13	2.873	<0.005**
unrefined carbohydrates	95	87	8	2.647	<0.010**
total protein	105	97	8	2.641	<0.010**
vitamin A	9495	8163	16	2.374	<0.025**
total calories	2054	1948	5	2.334	<0.025**
vegetable protein	22	20	8	1.965	<0.050**
acid	41.5	37.5	10	1.776	>0.050
calcium	0.753	0.706	6	1.154	>0.100
vitamin D	82	79	3	0.419	>0.500
total carbohydrates	158	157	0	0.042	>0.500

\* seven-day dietary survey \*\* statistically significant difference of the means

Figure Six. The mental illness proneness profile as described from the CWF-2 test and the seven-day dietary survey. The data suggest that refined carbohydrate foodstuffs represent a susceptibility agent. Conversely, unrefined carbohydrates suggest a resistance factor. Many other vitamins, minerals, and major foodstuffs seem to serve as resistance variables.

decreasing order of statistical importance as determined by the t value. Five points deserve particular mention.

First, it is clear that niacin, the third item from the top, fits into the scheme as a factor in the mental illness proneness profile as previously discussed. However, arrayed in statistical order, it ranks third among the sixteen significant nutrient analyses. This observation, per se, is quite consistent with the earlier mentioned statement of extensive nutrient interrelationships.

Second, it will be observed that iron appears to be the most statistically dominant variable in this particular experiment as judged by a  $t = 4.477$  and a  $P < 0.001$ . Specifically, those subjects with the better psychic state show the higher iron intake. Hence, iron is to be viewed as a resistance agent. This point is noteworthy since iron is usually not considered to play a role in mental illness.

Third, this chart shows that, quite consistently, the group with no psychologic illness [CWF-2 = 0] is characterized by higher mean nutrient intakes except for *refined carbohydrate food intake*. Hence, on a mean basis, the other nutrients must be viewed as *resistance* agents while refined carbohydrate foodstuffs are to be regarded as a *susceptibility* agent. This is in keeping with the knowledge that hypoglycemia and emotional or psychologic disorders are significantly interrelated<sup>7</sup>.

Fourth, it should be underlined that the group with the greater intake or refined carbohydrate foodstuffs is associated with the greater psychologic score. This makes *refined carbohydrates* a *susceptibility* agent. In contrast, the subjects with the greater intake of unrefined carbohydrates show a better CWF-2 score. This should be interpreted to mean that the *unrefined carbohydrates* serve as a *resistance* agent. For this reason, the *total carbohydrate*

the mental illness proneness profile [CWF-2 scores]  
[dietary analysis]\*

dietary parameter	CWF-2 scores 0	1+	per- centage differ- ence	t	P
Percentage of calories from refined carbo- hydrates	16.2	21.9	36	5.042	<0.001**
pantothenic acid calories from refined carbohydrates	16.7	13.4	20	4.004	<0.001**
vitamin B <sub>6</sub>	359	470	31	3.406	<0.001**
vitamin A	4.2	3.5	16	3.320	<0.001**
vitamin C	19341	15048	22	3.316	<0.001**
vitamin B <sub>12</sub>	294.9	249.9	23	3.169	<0.005**
total protein	111.1	8.6	23	2.886	<0.005**
iodine	111.3	102.5	8	2.739	<0.010**
vitamin B <sub>2</sub>	0.7	0.6	12	2.583	<0.010**
tryptophane	5573	5065	9	2.535	<0.025**
vitamin E	5.1	4.1	19	2.490	<0.025**
methionine	1275	1084	15	2.431	<0.025**
niacin [vitamin B <sub>3</sub> ]	60.7	48.1	21	2.423	<0.025**
leucine	2327	2127	9	2.351	<0.025**
threonine	56.4	44.6	21	2.304	<0.025**
phenylalanine	7674	7101	7	2.178	<0.050**
potassium	3902	3605	8	2.073	<0.050**
lysine	4254	3958	7	2.040	<0.050**
iron	1450	1144	21	1.984	<0.050**
polyunsaturated fatty acids	7139	6588	8	1.957	>0.050
iso-leucine	28.3	23.8	16	1.787	>0.050
magnesium	13.3	12.1	9	1.627	>0.100
phosphorus	5264	4964	6	1.534	>0.100
percentage polyunsat- urated to saturated fat	310	292	6	1.449	>0.100
fat	1514	1448	4	1.415	>0.100
total calories	11.0	10.4	6	1.222	>0.200
calcium	135.5	131.7	3	0.861	>0.200
ratio calcium/phosphorus	2166	2067	5	0.812	>0.400
total sodium	1052	1017	3	0.710	>0.400
	0.65	0.66	1	0.348	>0.500
	2609	2628	1	0.223	>0.500

\* food frequency questionnaire

\*\* statistically significant difference of the means

March 1972

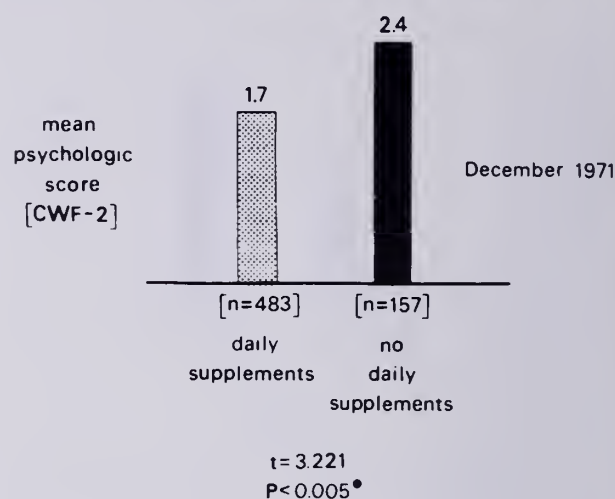
Figure Seven. The mental illness proneness profile as developed from the CWF-2 test and the food frequency questionnaire.

consumption is insignificant since the resistance or plus effect of the unrefined carbohydrates is cancelled out by the susceptibility or minus action of the refined carbohydrates.

Finally, it is evident that the majority of the nutrients studied show statistically significant relationships. Actually, 16 out of 20 nutritional evaluations were significantly related to emotional state.

Figure Seven is an attempt to reexamine the concept of the mental illness proneness profile shown in the earlier illustration utilizing the same psychometric tool [CWF-2 test] but a different dietary analysis technique [food frequency questionnaire]. It will be observed that vitamin B<sub>3</sub> is a dominant resistance agent though actually fifteenth in order. This again suggests the possible importance of other dietary constituents. The percentage of calories derived from refined carbohydrate foods is number one and is a susceptibility agent since those subjects consuming the higher amounts of these foodstuffs show the higher psychologic score. Vitamin E, measured by this particular

mean psychologic score [CWF-2] in terms of daily  
vitamin-mineral supplementation [Question # 75, OHI]



\* statistically significant difference of the means

Figure Eight. The relationship of daily multivitamin supplementation versus psychologic state. Daily vitamin supplementation must be viewed as a resistance agent because, when added, it tends to discourage psychologic symptoms and signs.

food frequency technique and not by the seven-day dietary method turns out to be a resistance agent. There are many similarities in the mental illness proneness profile as fabricated by these two methods. However, the different psychometric and dietary methods produce somewhat different results for many explicable and some unknown reasons.

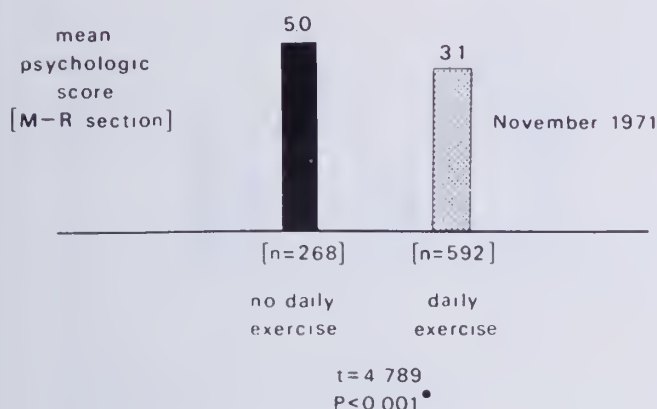
Finally, it is noteworthy that even vitamin-mineral supplementation may be viewed as a resistance agent [Figure Eight]. It will be observed that the number of pathologic scores is significantly higher [2.4] in the group characterized by no daily vitamin supplementation, the black column on the right versus a mean score of 1.7 in the vitamin-supplemented group shown as the stippled bar on the left.

The observations shown here are quite in accord with the reported salutary effect of vitamin B<sub>3</sub> in schizophrenia. However, the evidence also suggests that multiple dietary factors may also be involved in the genesis of mental illness. Emphasis on providing an adequate intake of all essential nutrients may enhance the therapeutic effect of B<sub>3</sub> and possibly reduce the amounts needed to achieve the desired effect upon emotional state.

There is now reasonable evidence to suggest that *non-dietary* risk factors also prevail in the mental illness proneness profile. For example, Figure Nine underlines the point that subjects who take daily exercise [the stippled column on the right] tend to be associated with lower [better] psychiatric scores. Specifically, the no daily exercise group [the black column on the left] has a score of 5.0 versus 3.1 for the exercise group [stippled bar]. Thus, by definition, exercise may be viewed as a resistance agent for mental illness. Based on the high t value of 4.789, it can be regarded as a dominant resistance factor. Parenthetical



psychologic state [M-R section of CMI]  
in terms of daily physical activity [Question #141, CMI]



• statistically significant difference of the means

Figure Nine. The relationship of psychologic state as determined by the M-R sections of the CMI versus daily exercise. The group characterized by daily exercise is associated with the fewer psychologic findings making exercise a resistance factor.

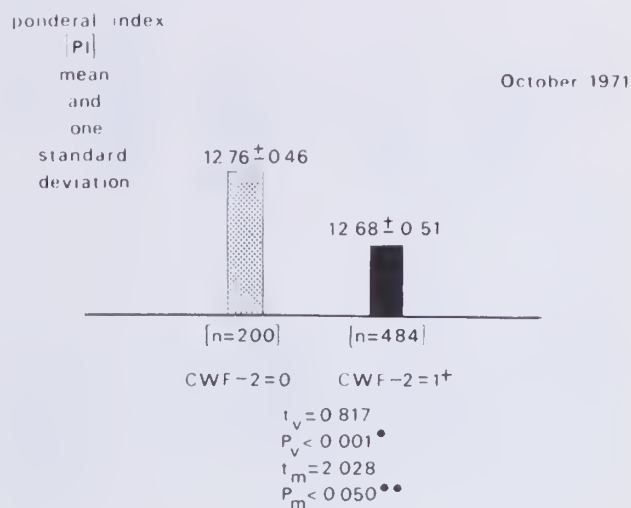
mention should be made that physical activity has also been identified as a resistance agent for cardiovascular and oral disease. Phrased another way, a resistance agent in one profile is a resistance agent in all profiles; conversely, a susceptibility agent remains a susceptibility agent.

Actually, a number of nondietary parameters such as tobacco, alcohol, and coffee/tea have been analyzed with regard to their possible role in the mental illness proneness profile. From such data, exercise must be viewed as a resistance agent and tobacco, alcohol, and coffee/tea must be considered as susceptibility factors.

Other parameters of another order have been studied as possible contributors to the mental illness proneness profile. For example, weight may well be one such variable [Figure Ten]. The ratio of height to weight is known as the ponderal index [abbreviated PI]. In actual practice, the ponderal index is derived from the height [expressed in inches] divided by the cube root of the weight [in pounds]. For practical purposes, the lower the ponderal index, the heavier is the subject for his height. Conversely, the higher the ponderal index, the lighter is the individual for his height. Figure Ten shows that the subjects with the better psychic picture [CWF-2 = 0] on the left, are statistically significantly lighter than those with psychologic complaints. Or, put another way, the heavier the individual, the greater the possibility for psychologic findings as indicated by the black bar on the right. Hence, within the limits of this observation, weight must be viewed as a susceptibility agent.

In fact, if one studies the groups with and without psychic symptoms and signs in terms of organ systems, it is noteworthy that the mental illness-prone individual is more beset with general complaints, meaning symptoms and signs. Figure Eleven shows that those individuals with no

relationship of psychologic state [CWF-2]  
and ponderal index [PI]

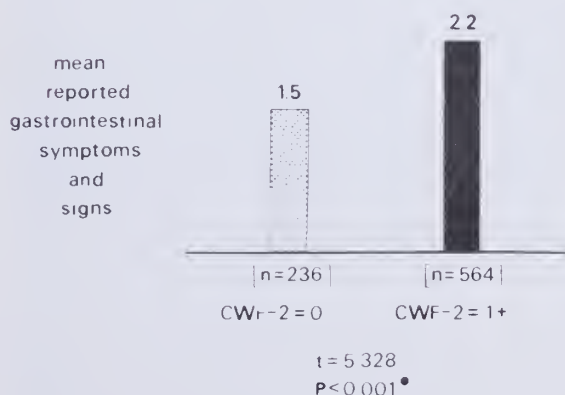


• statistically significant difference of the variances

•• statistically significant difference of the means

Figure Ten. The relationship of psychic state [as judged by the CWF-2 scores] versus weight [as measured by the ponderal index]. Those subjects with the greater number of psychologic symptoms and signs are the subjects who tend to be heavier.

relationship of psychologic state [CWF-2] and reported  
gastrointestinal symptoms and signs [CMI]

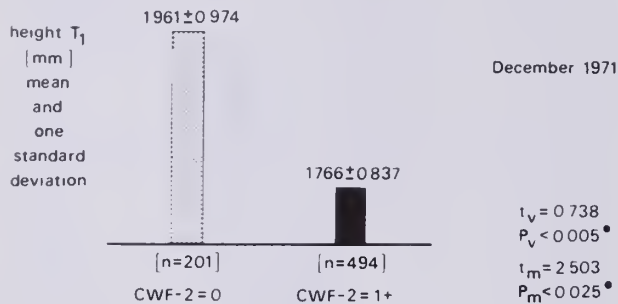


• statistically significant difference of the means

December 1971

Figure Eleven. The relationship of psychic scores and gastrointestinal findings. It is clear that the group characterized by no psychic findings [CWF-2 = 0] reveal the lesser number of gastrointestinal symptoms and signs.

relationship of psychologic state [CWF-2] and height  $T_1$



\*statistically significant differences of the means and variances

Figure Twelve. The relationship of psychic state [as measured by the CWF-2 score] versus cardiac status [as determined by the height of T in Lead I in the electrocardiogram]. The subjects with the better psychic state [CWF-2 = 0] show the higher T wave.

psychic symptoms and signs on the left tend to have significantly fewer gastrointestinal findings [1.5 in the stippled column versus 2.2 in the black bar].

Many other clinical and physiologic parameters seem to be significantly different in individuals with and without psychologic complaints. For instance, Figure Twelve shows that the height of the T wave in Lead I of the electrocardiogram is significantly higher [1.961] and presumably more physiologic in the subjects with the healthier psychic stroma [CWF-2 = 0, the stippled column].

Attempts have also been made to identify biochemical correlates in terms of the mental illness proneness profile. For example, Figure Thirteen outlines the classical oral three-hour glucose tolerance patterns for subjects with and without psychic complaints as judged by the Cornell Word Form-2 test. The evidence indicates that there are statistically significant differences in variance at the two- and three-hour temporal points. Translated into nonstatistical language, this means that at two and three hours there were more subjects with hyper- or hypoglycemia in the group with psychologic findings than in the group without psychologic symptoms and signs. Specifically, the ranges were plus or minus 20 versus 30 milligrams per cent at two hours and 20 versus 35 milligrams per cent at three hours.

These last four illustrations are noteworthy for two reasons. First, they represent possible risk factors in the mental illness proneness profile. Second, too often in conventional medicine, a psychiatric diagnosis is made by exclusion, specifically, when no organic pathosis is evident. These four illustrations pose the interesting point that, even in the most subtle psychologic states, there are already significant organic changes.

classical oral glucose tolerance test in terms of psychologic state [CWF-2]

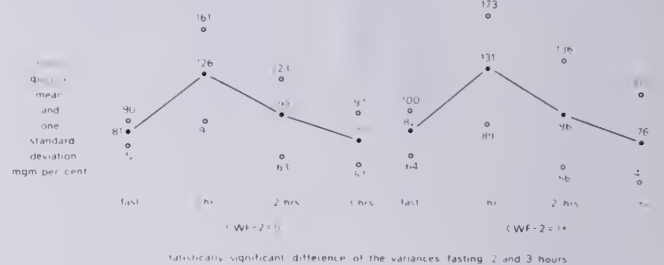


Figure Thirteen. The classical glucose tolerance patterns in subjects with and without psychologic complaints as determined from the Cornell Word Form-2 test. The evidence suggests that there is more evidence of hyper- and hypoglycemia at the two and three hour temporal points in the group with the CWF-2 = 1+ than in the group with no psychologic findings [CWF-2 = 0].

### Correlation Versus Cause-and-Effect

For purely predictive purposes, simple correlation suffices. In other words, if variable A correlates with regularity with variable B, then one can predict A from B or B from A whether the relationship is causal directly, indirectly, or not at all. However, it is helpful and more significant if there are indeed cause-and-effect relationships in addition to purely correlations. Two such examples will be utilized for this discussion.

Earlier mention was made that the data for this report were derived from a multiple testing program conducted to determine the health of members of the health professions. It is, therefore, interesting to observe the changes in psychologic state in terms of changes in some of the variables described earlier as resistance agents. Those consuming vitamin-mineral supplements are in the stippled columns while the black bars represent those not taking supplements.

Figure Fourteen outlines three groups. First, those subjects taking multivitamin supplementation at the beginning and end of one year of the program. These are pictured on the extreme left. Second, there is a group which started to take supplementation during the year. This is the center series. Finally, the third group is characterized by no supplementation during the experimental year as shown on the right. You will note that there are fewer psychologic findings initially [3.8 versus 4.7 and 6.0] in the group taking daily multivitamin supplementation. Second, it will be observed that there are only statistically significant reductions in psychologic scores in the two groups with supplementation. Finally, the most significant change



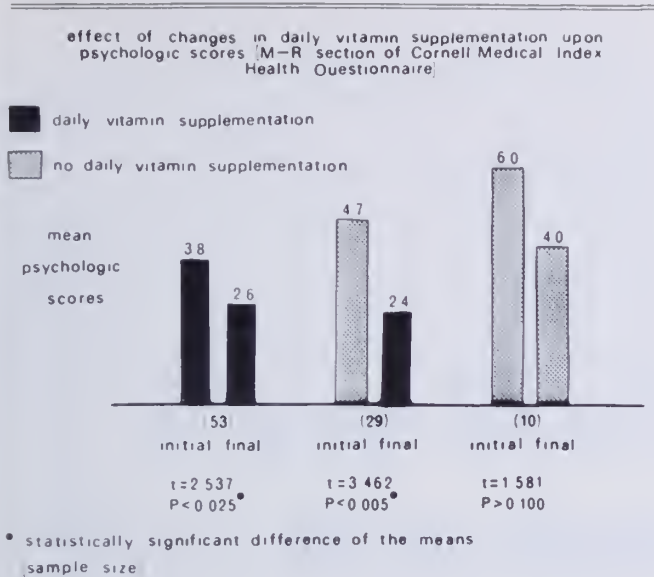


Figure Fourteen. The effect of multivitamin supplementation upon psychologic state as judged from the M-R section of the Cornell Medical Index Health Questionnaire. Initially, the group characterized by daily supplementation shows a lower score [3.8] than those without supplementation [4.7 and 6.0]. After one year, there is a statistically significant reduction in psychologic scores only in the two groups taking daily supplements.

occurred in the group which started a supplementation program [the center group]. This simple observation tends to support the finding earlier described showing a simple relationship between multivitamin supplementation and psychic state suggesting that supplementation may be viewed as a resistance agent.

Finally, Figure Fifteen outlines the changes in tryptophane intake versus psychologic score during a one-year period. In the subjects who increased their tryptophane consumption [Group I on the left] from 947 to 1331 milligrams, there was a statistically significant reduction in the CWF-2 score by almost 50 per cent from 1.9 to 1.0 [Group I on the right]. In the individuals who did not increase tryptophane intake [Group II on the left], there was no significant changes in psychologic scores [Group II on the right]. This is consistent with the recent findings that 1-tryptophane supplementation in insomniacs and depressed patients serves as a tranquilizer and significantly enhances sleep.

### The New Terminology

Thus, as we have learned, preventive medicine is not new. It is cloaked under diverse terms such as *predictive*, *prognostic*, *protective*, *anticipatory*, *social medicine*, and *propetology*. All of these labels are perfectly respectable, descriptive, valid and useful. One might then question the need for generating new nomenclature such as *predictive medicine*. Four explanations are offered. First, from a purely etymologic standpoint, *predictive medicine* is the most precise term since the Latin derivative for prediction means to foretell. Hence, the term *predictive medicine*

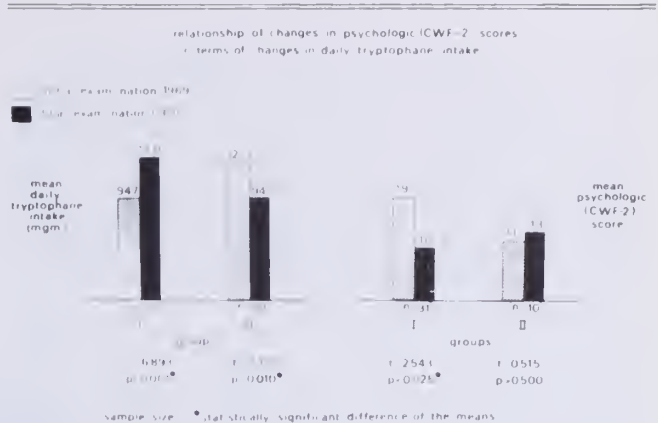


Figure Fifteen. The effect of change in tryptophane consumption upon psychologic state. In the group characterized by an increase [Group I on the left,] there is a decrease in psychologic score [Group I on the right]. In the group with no increase in tryptophane [Group II on the left], there is no decrease in psychologic score [Group II on the right].

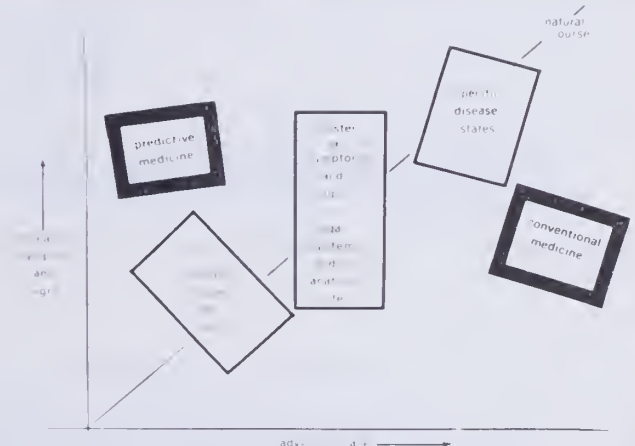


Figure Sixteen. One of the most glaring distinctions between conventional and preventive medicine is underlined in this diagram. Conventional medicine concerns itself largely with the identification of disease as shown in the box on the right. In contrast, true preventive medicine or predictive medicine is concerned with the anticipation of disease. Thus, the emphasis is shifted to the left.

spells out unequivocally the unique anticipatory characteristics of this philosophy of medicine. Second, unlike the apt term *prophetology* which means leaning toward, *predictive medicine* is a simple and self-explanatory term. Third, *predictive medicine*, as a relatively new label, is not shrouded with historic misconceptions and semantic overtones. For example, present-day preventive medicine is largely concerned with public health in the traditional sense such as acute infectious diseases and embraces relatively few prognostic connotations relating to the common chronic killing and crippling disorders such as ischemic heart disease, cancer, and rheumatoid arthritis. Fourth, *predictive medicine*, is an unique discipline which encompasses concepts and instrumentation from many different well-established specialties like epidemiology, biostatistics, clinical pathology, clinical medicine, psychology, ecology, nutrition, physical education, and stomatology, which are not currently utilized in *packaged form* in any other single discipline.

### Summary

There are many differences between conventional and preventive medicine. One of the most glaring distinctions is that, in the traditional practice of medicine, a diagnosis is only made when a set number and constellation of symptoms and signs prevail. Thus, the emphasis in conventional medicine is on the box on the right [Figure

Sixteen]. Hence, for practical purposes, the long and tortuous incubation period, clinically and biochemically, goes frequently unlabelled or tagged as an ill-defined psychologic syndrome. Sensitivity to the most subtle clinical and biochemical events is an integral part of a preventive medicine plan with the emphasis shifted to the area on the left [Figure Sixteen]. As Danowski so aptly pointed out, it is time think in terms of twenty per cent of disease X and forty per cent of disease Y. This approach not only invites the earlier *identification* of disease but, more importantly, its *anticipation* with the institution of earlier therapy for primary prevention. ●

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2. Cheraskin, E. and Ringsdorf, W. M., Jr. Predictive medicine: IV. The gradation concept. J. Amer. Geriat. Soc. 19: No. 6, 511-516, June 1971.
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4. Stamler, J. Lectures on preventive cardiology. 1962. New York, Grune and Stratton.
5. Cheraskin, E. and Ringsdorf, W. M., Jr. The mental illness proneness profile. Alabama J. Med. Sci. 10: No. 1, 32-45, January 1973.
6. Cheraskin, E. and Ringsdorf, W. M., Jr., and Clark, J. W. Diet and disease. 1968. Emmaus, Pennsylvania, Rodale Books.
7. Cheraskin, E. and Ringsdorf, W. M., Jr. New hope for incurable diseases. 1971. New York, Exposition Press.

Is there a tablet containing only  
an expectorant and only  
Glyceryl Guaiacolate? YES!

1. Patient acceptable tablet dose.
2. Single entity expectorant.
3. Measured tablet dose.
4. Sugar-free tablet.

An identifiable white, scored tablet which significantly stimulates the secretion of respiratory tract fluid.

# HYTUSS TABS

(GLYCERYL GUAIACOLATE 100mg.)

**Composition:** Each sugar-free compressed tablet contains glyceryl guaiacolate 100mg. **Action and Use:** This preparation utilizes the effective expectorant action of glyceryl guaiacolate which significantly stimulates the secretion of respiratory tract fluid. The increased flow of less viscid fluid favors expectoration and has a demulcent effect on the tracheobronchial mucosa. The primary usefulness of Hytuss Tabs is to promote the change from a dry, unproductive cough to a productive cough. Hytuss is therefore useful in treating coughs due to the common cold, bronchitis, laryngitis, tracheitis, pharyngitis, influenza and the measles. The expectorant action of Hytuss may also provide symptomatic relief in some chronic respiratory disorders when the patient experiences spasms of dry nonproductive coughing. **Precautions:** Extremely large amounts may cause nausea and vomiting. **Administration and Dosage:** Adults—1 tablet four times daily. Children—6 to 12 years of age; ½ tablet 3 or 4 times daily. **HOW SUPPLIED:** White, scored, sugar-free, tablet in bottles of 100 - 1,000 - 5,000. **Product Identification Mark:** Hy. **Literature Available:** On request. **Available through all drug wholesalers.**



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P.O. Box 6006  
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A copy of our report is filed with the Federal Election Commission and is available for purchase from the Federal Election Commission, Washington, D.C.

# Around The State

## Roster Supplement

### new members

#### DEKALB COUNTY

CARUSO, Homer Achilles, b 28, mc Arkansas 61, recip. Arkansas 61, Rainsville 35986.

PINEDA, Thomas Quiambao, Jr., b 39, mc Manila 65, recip. Kentucky 76, 309 14th Street, NW, Ft. Payne 35967. S.

#### JEFFERSON COUNTY

ABU-LIBDEH, Ali Jabr Hasan, b 45, mc Cairo 69, recip. Ga. 75, Lloyd Noland Hospital, Fairfield 35064. I.

BOGAN, Richard Keith, b 45, mc S. Carolina 70, recip. NBME 71, 323 Zeigler Bldg., UAB Station, Birmingham 35294. I.

BRASFIELD, Dana Marie, b 46, mc Ala. 72, recip. NBME 73, 1601 6th Avenue, S., Birmingham 35294. I.

BROWN, Ellen Andrews, b 52, mc Ala. 75, recip. NBME 76, Carraway Methodist Medical Center, Birmingham 35234.

CHANG-POON, Vivien Yuen-Hwa, b 45, mc Hong Kong 68, recip. Ohio 76, 1025 South 18th Street, Birmingham 35205. Path.

ENGLAND, Leslie Ellsworth, b 49, mc LSU 75, recip. La. 75, 1615 25th Street, North, Birmingham 35234.

HETTINGER, Michael Eugne, b 46, mc Tennessee 75, The Eye Foundation Hospital, 1720 8th Avenue, South, Birmingham 3523. Opth.

LYRENE, George Allan, b 4, mc Ala. 75, recip. NBME 76, Carraway Methodist Medical Center, 1615 25th Street, North, Birmingham 35234.

MORAWETZ, Richard Bacon, b 4, mc Duke 69, recip. NBME 70, Division of Neuro-Surgery, UAB Station, Birmingham 35294. NS.

NILES, Jack Kenneth, b 48, mc Tenn. 73, recip. Tenn. 73, 2309 Canyon Road, Birmingham 35216.

OWENS, Robert Earle, b 51, mc Louisiana State 75, recip. La. 75, 1615 North 25th Street, Birmingham 35234.

#### LAUDERDALE COUNTY

ROE, Thomas Vance, b 26, mc Tenn. 56, recip. Tenn. 57, Coffee Memorial Hospital, Florence 35630.

#### MADISON COUNTY

GRIFFITH, Rolf Parker, Jr., b 42, mc LSU 70, recip. La. 70, 101 Sivley Road, Huntsville 35401. R.

#### MONTGOMERY COUNTY

BARANOWSKI, Joseph A., b 08 mc Georgetown 36, recip. NBME 37, 680 Sandhurst Drive, Montgomery 36109. HACKMAN, John Edward, b 40, mc Kentucky 700, recip. NBME 71, 2119 East South Blvd., Montgomery 36111. NS.

HART, James E., b 3, mc Washington 59, recip. Pa. 60, 347 Inner Circle, Maxwell AFB, Montgomery 36112. Pd.

LESTER, Albert Eugene, b 46, mc Michigan 73, recip. Michigan 73, 1156 Oak Street, Montgomery 36108. I.

MCCORVEY, Roosevelt, b 4, mc Jefferson Medical College 73, recip. NBME 74, 1156 Oak Street, Montgomery 36108. ObG.

WALTON, Norman William, III, b 4, mc Howard 70, recip. NBME 71, 1156 Oak Street, Montgomery 36108.

### removed

#### FRANKLIN COUNTY

WISE, David M., Removed.

#### HOUSTON COUNTY

CROUTCHER, Donald L., Removed.  
CROUTCHER, Virginia S., Removed.

### reinstated

#### JEFFERSON COUNTY

SIMPSON, Wyatt Collier, b 07, mc Harvard 31, recip. NBME 38, P. O. Box 2727, Birmingham 35202. GP.

#### COLBERT COUNTY

SOCKWELL, Glen Davis, b 31, mc Ala. 56, recip. Ga. 62, 1111 S. Raleigh Ave., Sheffield 35660. Pd.

### deceased

#### LAUDERDALE COUNTY

REA, John Wren—11/01/76.

### new phone numbers

ABU-LIBDEH, A. H.,  
Jefferson . . . . .785-5121

BARANOWSKI, J. A.,  
Montgomery . . . . .277-2946

BOGAN, R. K.,  
Jefferson . . . . .934-3505

BRASFIELD, D. M.,  
Jefferson . . . . .93-4258

BROWN, E. A.,  
Jefferson . . . . .254-6000

CHANG-POON, V. Y.,

Jefferson . . . . .933-8221

ENGLAND, L. E.,  
Jefferson . . . . .254-6000

HACKMAN, J. E.,  
Montgomery . . . . .281-7280

HETTINGER, M. E.,  
Jefferson . . . . .93-8251

LESTER, A. E.,  
Montgomery . . . . .269-2527

LYRENE, G. A.,  
Jefferson . . . . .254-6000

MCCORVEY, R.,  
Montgomery . . . . .269-2527

MORAWETZ, R. B.,  
Jefferson . . . . .934-4654

NILES, J. K.,  
Jefferson . . . . .822-5010

OWENS, R. E.,  
Jefferson . . . . .254-6000

SIMPSON, W. C.,  
Jefferson . . . . .325-7010

WALTON, N. W., III  
Montgomery . . . . .264-6446

### listing changes

#### DEKALB COUNTY

NOBLE, William — Medical College — Emory 1938.

### address changes

#### BALDWIN COUNTY

NICHOLS, E. Tyler, present Bay Minette to P. O. Box 237, Foley 36535.

#### ELMORE COUNTY

NICKSON, Hugh C., Sr., present Eclectic to P. O. Drawer N, Eclectic 36024.

#### ETOWAH COUNTY

FRANK, Herman W., present Gadsden to 208 Argyle Circle, Gadsden 35901.

#### JEFFERSON COUNTY

BRANNON, Loyd C., present Birmingham to 328 Combo Lane, Birmingham 35226.

BROWN, Hunter M., present Birmingham to 800 Montclair Rd., Suite 303, Birmingham 35213.

COSBY, Joseph C., present Birmingham to 3512 Hawksbury, Birmingham 35226.

DILLARD, Richard A., present Birmingham to 2018 Brookwood Medical Center, Birmingham 35209.

LEE, Daisy S., present Birmingham to 1025 South 18th Street, Suite 303, Birmingham 35205.



SAWYER, Nancy J., present Birmingham to 2212 Mountain View Drive, Birmingham 35216.

#### **MOBILE COUNTY**

CARLIN, John T., Jr., present Mobile to Box 1708, Mobile 36601.

SCRIPTER, Lyman J., present Mobile to 3720 Kentan Dr., Mobile 36608.

SKINNER, Henry F., present Mobile

to 3708 Calderwood Dr., Mobile 36608.

#### **MONTGOMERY COUNTY**

GLAZER, Harry, present Montgomery to 125 South Ripley St., Montgomery 36104.

OLIVER, Frank E., present Montgomery to 5061 Carriage Bk. Rd., Montgomery 36116.

#### **RUSSELL COUNTY**

NORGARD, Michael J., present Phenix City to 618 Hambaugh Ave., Birmingham 35209.

#### **TUSCALOOSA COUNTY**

SENG, Barry S., present University to P. O. Box 489, Sterlington, La. 71280.

SHAMBLIN, William R., present Tuscaloosa to 535 River Road, East, Suite K, Tuscaloosa 35401. ●

## **Necrology**

#### **Hezekiah Adkins, M.D. 1911-1976**

Hezekiah Adkins, M.D., a former Etowah County Health Officer, passed away last week at the age of 65. A native of West Virginia, Dr. Adkins moved to Gadsden in 1945 and served as chief of anesthesiology for 16 years at Baptist Memorial Hospital.

In 1974, he was named Etowah County Health Officer, a post he held until the following year when he resigned. At the time of his death, Dr. Adkins was serving as public health officer for four North Alabama counties. ●

#### **James C. Laslie, M.D. 1907-1976**

James C. Laslie, M.D., a native of Montgomery, died Saturday, December 4, in a Montgomery hospital following an extended illness.

Dr. Laslie spent his early years in Tuskegee. He was a graduate of the University of Alabama and Johns Hopkins Medical School. During World War II, he served in the United States Army Medical Corps. ●

## **Speaker Discusses Laetril Controversy**

Laetril (also referred to as vitamin B-17), a controversial treatment for cancer patients, "is the biggest boondoggle of the twentieth century," said Dr. Irving Lerner, recent past president of the Minnesota Division of the American Cancer Society.

Dr. Lerner was a major speaker at a Nov. 10-12 national "Rehabilitation of the Cancer Patient" conference sponsored by the Spain Rehabilitation Center of The University of Alabama in Birmingham (UAB).

Dr. Lerner pointed out that laetril, a derivative of apricot pits, has received much attention in the media of a 1973 preliminary study on the drug's effectiveness as a treatment for cancer at the Memorial Sloan-Kettering Institute in New York, N. Y.

Laetril has not been approved by the Federal Drug Administration (FDA). However, the legality of laetril is not certain in many states. "Only nine states have made laetril clearly illegal," said Dr. Lerner. ●

## **Anesthesiology Review Course Offered**

The Department of Anesthesiology of the University of Alabama Medical Center in Birmingham together with the Division of Continuing Medical Education will present its Fifth Annual Anesthesiology Review Course "Issues and Answers in Anesthetic Practice" on February 26-27, 1977, at the New Basic Science Building on the University of Alabama Campus. This year's subject will be "Anesthesia and the Nervous System."

As in previous years, a number of outstanding and informative guest speakers could be secured. The Visiting Faculty will consist of: Maurice S. Albin, M.D., M.Sc., Professor of Anesthesiology and Neurological Surgery, University of Pittsburgh; Gerald Moss, Ph.D., M.D., F.A.C.S., Professor of Biomedical Engineering, Rensselaer Polytechnic Institute, Troy, New York; Aaron J. Gissen, M.D., Professor of Anesthesiology, Harvard Medical School, Boston; Raymond E. Tobey, M.D., Chairman, Department of Anesthesiology, National Naval Medical Center, Bethesda; John H. Tinker, M.D., Assistant Professor of Anesthesiology, Mayo Clinic, Rochester, Minnesota.

They will be joined by the following faculty members of the University of Alabama Department of Anesthesiology: Guenter Corssen, M.D., Professor and Chairman; Joseph Gerald Reves, Associate Professor; and Frederick R. Brosch, M.D., Associate Professor, who also serves as program chairman.

Subjects of interest to the anesthesiologist related to the central as well as the peripheral nervous system including the myoneural junction will be discussed. The program is clinically oriented in its entirety and is intended for the practicing anesthesiologist, the part-time practitioner and the nurse anesthetist as well as for interested physicians of other specialties.

In an effort to broaden the scope of this continuing medical education program, arrangements have been made for a clinical observation period on Friday, February 25, and Monday, February 28, 1977. Participants in the review course will be able to observe anesthetic procedures, respirator demonstrations, nerve blocks, etc. at the UAB Medical Center. There will also be an opportunity for group discussions.

Additional information may be obtained by contacting Frederick R. Brosch, M.D., Program Chairman, Department of Anesthesiology, University Station, Birmingham, Alabama, 35294. ●



## Physicians' placement service in Alabama

*The Medical Association of the State of Alabama maintains the Physicians' Placement as a service to the medical profession in the state of Alabama. Opportunities for practice in Alabama will be published and will be distributed to physicians making inquiry. Physicians wishing to establish practice are invited to submit a resume to be kept on file with the Association. For further information write to: Mr. Emmett Wyatt, Executive Assistant, Medical Association of the State of Alabama, P. O. Box 1900-C, Montgomery, Alabama 36104, or Telephone 263-6441.*

### LOCATIONS WANTED

*(Physicians interested in locating in Alabama)*

**Dermatology:** Age 27; University of Alabama, 1974; seeking practice in town of 30,000 plus population. Available July 1978. LW-001.

**General Practice:** Age 34; University of Alabama, 1975; seeking practice in northern or central Alabama in town of 50,000 or more population. Available April 1978. LW-002.

**Family Practice:** Age 29, University of Kentucky 1972; National Board Certified; American Board Eligible; seeking Single Specialty Group, Partnership, or Multi-specialty Group. Available August 1977. LW 05532.

**Internal Medicine:** Age 34, University of Alabama 1968; National Board Certified; American Board Certified; seeking Solo, Single specialty group, or Multi-specialty group. Available April 1977. LW 02108.

**Obstetrics & Gynecology:** Age 31, University of Tennessee 1970; Will be American Board Eligible 1977; seeking Single specialty group, Partnership, or Multi-specialty group. Available July 1977. LW 05782.

**Obstetrics & Gynecology:** Age 29; Meharry Medical College, 1973; seeking group practice in city of 300,000-500,000 population. Available July-August 1977. LW-03.

**Ophthalmology:** Age 31; University of Illinois 1971; National Board Certified; American Board Eligible; seeking Partnership, Single specialty group, or Multi-specialty group. Available July 1977. LW-05889.

**Surgery:** Age 33, University of Maryland 1969; National Board Certified; Will be American Board Eligible 1977; seeking Research, Institutional, or Single specialty group. Available July 1977. LW-05587.

**Cardiovascular and Thoracic Surgeon:** Age 35, University trained, experienced in open heart, vascular and pulmonary surgery and now in group practice. Wishes to relocate in private practice. LW-20.

**Surgery/General Practice:** Age 31; University of Florida 1971; Will be American Board Eligible 1976; seeking partnership, single specialty group or multi-specialty group. Available July 1977. LW-01589.

**Orthopedic Surgery:** Age 28; Emory University 1973; American Board Certified; seeking Single Specialty Group. Available July 1977. LW 15.

**Urology:** Age 31, University of Mississippi 1970; American Board Eligible; seeking Single Specialty Group. Available July 1977. LW 17.

**Sophomore Medical Student** -- age 22, interested in a town or hospital assisting with medical school costs in return for service there in general/family practice. Available 1980. LW-01.

**General Surgery**—Age 31, University of Tennessee 1972, interested in Associate or single specialty group. Available June 1977. LW-25.

**General/Family Practice, Internal Medicine**—Age 30, Duke University 1968, internship will be completed June 1977, interested in both in-hospital and out-patient care. Available June 1977. LW-4.

### PHYSICIANS WANTED

*(Opportunities For Practice)*

**Internist & Family Physician** — Opportunity available for an Internist and a Family Physician in a community ten miles north of Mobile. Excellent growth potential. Financial assistance available. Abundant outdoor activities (30 miles from gulf). PW-15.

A community with combined population of 10,000 located near Mobile, Alabama is seeking a **general practitioner**. Office space available with living quarters. Several churches and schools. PW-9

**General Practitioner's** 2 family physicians wanted for general practice in a 64-bed hospital, located between 2 North Alabama towns (in the heart of the Tennessee Valley) with a trade population of 18,000. Office space available. Within 35 miles of large city. Large amount of industrial work in our area. PW-7.

Opportunity for **General Practitioner** in town of 4,000 population; trade area 30,000 population location in southeast Alabama within short distance of hospitals. One g.p. and two dentists presently in the town. Agricultural and industrial area. PW-3.

Opportunity for **General Practitioner** in town of 3,000 population; trade area 16,000 population located in southeast Alabama, within short distance of city of 35,000 population where there are two hospitals. Located 85 miles from Gulf Coast beaches. Office space and equipment available. Last physician in town died two years ago. Industrial and farming area. Churches, schools and recreational activities. PW-2.

**General Practitioner** needed in progressive rural community of about 1,000 people with trade area of 20,000 for 36 bed, joint commission approved hospital. Located in East Central Alabama, within 90 miles of Atlanta, 100 miles of Montgomery and Birmingham, and within 20 minutes of I-20. Guaranteed office space with rent to be worked out. Interested parties and their families are invited to visit with expenses paid. PW-13.

**Wanted—Family Physicians, Internist, Pediatricians, Ob-Gyn's, Pathologist, & other Physicians.** Southwest Alabama town close to Pensacola, Florida and Mobile, Alabama. Excellent growth potential; All recreational opportunities; Stable economy; JCAH Hospital with definite growth plans; 13,000 population; trade area 40,000. PW-5.

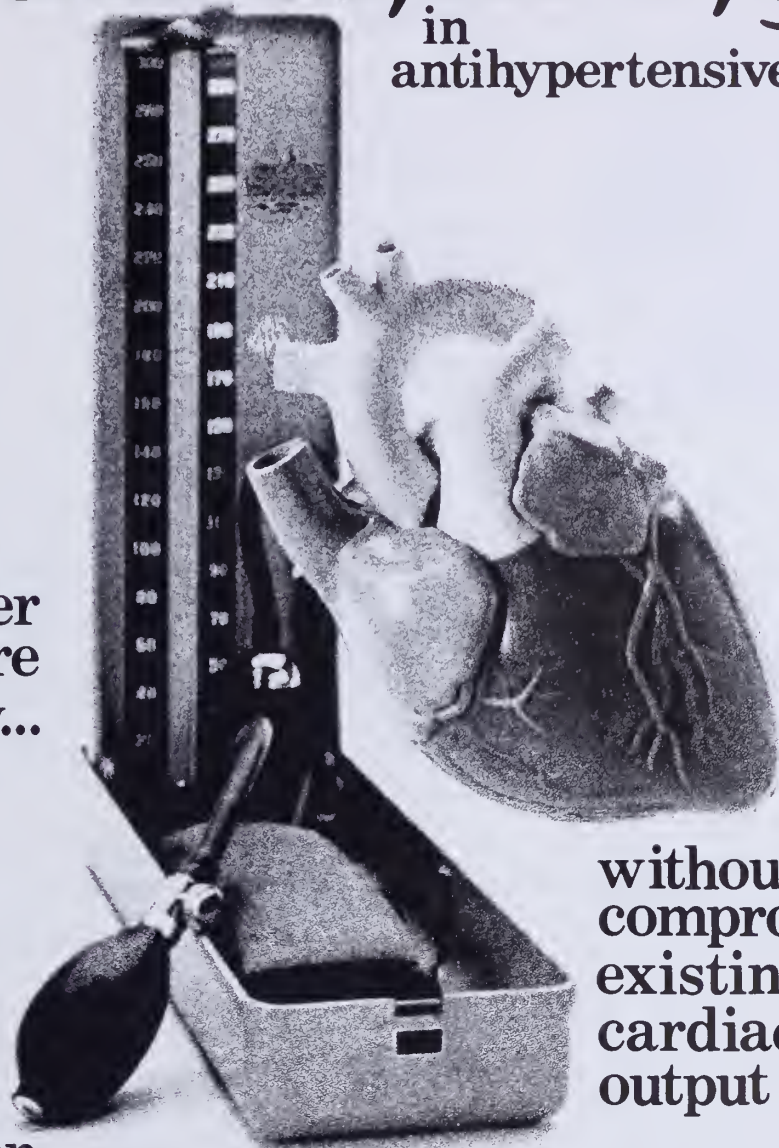
CONTINUED ON PAGE 43



# A Dual Challenge

in  
antihypertensive therapy

to lower  
blood pressure  
effectively...



without  
compromising  
existing  
cardiac  
output

in hypertension

TABLETS: 250 mg, 500 mg, and 125 mg

## ALDOMET<sup>®</sup> (METHYLDOPA | MSD)

helps lower blood pressure effectively...  
usually with no direct effect on  
cardiac function—cardiac output  
is usually maintained

ALDOMET is contraindicated in active hepatic disease, hypersensitivity to the drug, and if previous methyl dopa therapy has been associated with liver disorders.

It is important to recognize that a positive Coombs test, hemolytic anemia, and liver disorders may occur with methyl dopa therapy. The rare occurrences of hemolytic anemia or liver disorders could lead to potentially fatal complications unless properly recognized and managed. For more details see the brief summary of prescribing information.

For a brief summary of prescribing information, please see following page.

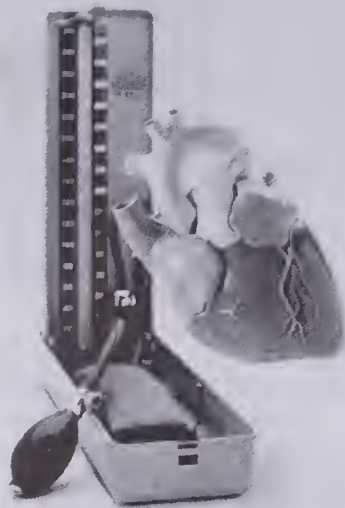
**MSD**  
MERCK  
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in hypertension

# ALDOMET®

(METHYLDOPA|MSD)

helps lower  
blood pressure  
effectively...  
usually with no  
direct effect on  
cardiac function—  
cardiac output is  
usually maintained



**Contraindications:** Active hepatic disease, such as acute hepatitis and active cirrhosis; if previous methyldopa therapy has been associated with liver disorders (see Warnings); hypersensitivity.

**Warnings:** It is important to recognize that a positive Coombs test, hemolytic anemia, and liver disorders may occur with methyldopa therapy. The rare occurrences of hemolytic anemia or liver disorders could lead to potentially fatal complications unless properly recognized and managed. Read this section carefully to understand these reactions.

With prolonged methyldopa therapy, 10% to 20% of patients develop a positive direct Coombs test, usually between 6 and 12 months of therapy. Lowest incidence is at daily dosage of 1 g or less. This on rare occasions may be associated with hemolytic anemia, which could lead to potentially fatal complications. One cannot predict which patients with a positive direct Coombs test may develop hemolytic anemia. Prior existence or development of a positive direct Coombs test is not in itself a contraindication to use of methyldopa. If a positive Coombs test develops during methyldopa therapy, determine whether hemolytic anemia exists and whether the positive Coombs test may be a problem. For example, in addition to a positive direct Coombs test there is less often a positive indirect Coombs test which may interfere with cross matching of blood.

At the start of methyldopa therapy, it is desirable to do a blood count (hematocrit, hemoglobin, or red cell count) for a baseline or to establish whether there is anemia. Periodic blood counts should be done during therapy to detect hemolytic anemia. It may be useful to do a direct Coombs test before therapy and at 6 and 12 months after the start of therapy. If Coombs-positive hemolytic anemia occurs, the cause may be methyldopa and the drug should be discontinued. Usually the anemia remits promptly. If not, corticosteroids may be given and other causes of anemia should be considered. If the hemolytic anemia is related to methyldopa, the drug should not be reinstituted. When methyldopa causes Coombs positivity alone or with hemolytic anemia, the red cell is usually coated with gamma globulin of the IgG (gamma G) class only. The positive Coombs test may not revert to normal until weeks to months after methyldopa is stopped.

Should the need for transfusion arise in a patient receiving methyldopa, both a direct and an indirect Coombs test should be performed on his blood. In the absence of hemolytic anemia, usually only the direct Coombs test will be positive. A positive direct Coombs test alone will not interfere with typing or

cross matching. If the indirect Coombs test is also positive, problems may arise in the major cross match and the assistance of a hematologist or transfusion expert will be needed.

Fever has occurred within first 3 weeks of therapy, sometimes with eosinophilia or abnormalities in liver function tests, such as serum alkaline phosphatase, serum transaminases (SGOT, SGPT), bilirubin, cephalin cholesterol flocculation, prothrombin time, and bromsulphalein retention. Jaundice, with or without fever, may occur, with onset usually in the first 2 to 3 months of therapy. In some patients the findings are consistent with those of cholestasis. Rarely fatal hepatic necrosis has been reported. These hepatic changes may represent hypersensitivity reactions; periodic determination of hepatic function should be done particularly during the first 6 to 12 weeks of therapy or whenever an unexplained fever occurs. If fever and abnormalities in liver function tests or jaundice appear, stop therapy with methyldopa. If caused by methyldopa, the temperature and abnormalities in liver function characteristically have reverted to normal when the drug was discontinued. Methyldopa should not be reinstituted in such patients.

Rarely, a reversible reduction of the white blood cell count with primary effect on granulocytes has been seen. Reversible thrombocytopenia has occurred rarely. When used with other antihypertensive drugs, potentiation of antihypertensive effect may occur. Patients should be followed carefully to detect side reactions or unusual manifestations of drug idiosyncrasy.

**Use in Pregnancy:** Use of any drug in women who are or may become pregnant requires that anticipated benefits be weighed against possible risks; possibility of fetal injury can not be excluded.

**Precautions:** Should be used with caution in patients with history of previous liver disease or dysfunction (see Warnings). May interfere with measurement of: uric acid by the phosphotungstate method, creatinine by the alkaline picrate method, and SGOT by colorimetric methods. Since methyldopa causes fluorescence in urine samples at the same wavelengths as catecholamines, falsely high levels of urinary catecholamines may be reported. This will interfere with the diagnosis of pheochromocytoma. It is important to recognize this phenomenon before a patient with a possible pheochromocytoma is subjected to surgery. Methyldopa is not recommended for patients with pheochromocytoma. Urine exposed to air after voiding may darken because of breakdown of methyldopa or its metabolites.

Stop drug if involuntary choreoathetotic movements occur in patients with severe bilateral cerebrovascular disease. Patients may require reduced doses of anesthetics; hypotension occurring during anesthesia usually can be controlled with vasopressors. Hypertension has recurred after dialysis in patients on methyldopa because the drug is removed by this procedure.

**Adverse Reactions: Central nervous system:** Sedation, headache, asthenia or weakness, usually early and transient; dizziness, lightheadedness, symptoms of cerebrovascular insufficiency, paresthesias, parkinsonism, Bell's palsy, decreased mental acuity, involuntary choreoathetotic movements; psychic disturbances, including nightmares and reversible mild psychoses or depression.

**Cardiovascular:** Bradycardia, aggravation of angina pectoris. Orthostatic hypotension (decrease daily dosage). Edema (and weight gain) usually relieved by use of a diuretic. (Discontinue methyldopa if edema progresses or signs of heart failure appear.)

**Gastrointestinal:** Nausea, vomiting, distention, constipation, flatus, diarrhea, mild dryness of mouth, sore or "black" tongue, pancreatitis, sialadenitis.

**Hepatic:** Abnormal liver function tests, jaundice, liver disorders.

**Hematologic:** Positive Coombs test, hemolytic anemia. Leukopenia, granulocytopenia, thrombocytopenia.

**Allergic:** Drug-related fever, myocarditis.

**Other:** Nasal stuffiness, rise in BUN, breast enlargement, gynecomastia, lactation, impotence, decreased libido, dermatologic reactions including eczema and lichenoid eruptions, mild arthralgia, myalgia.

**Note:** Initial adult dosage should be limited to 500 mg daily when given with antihypertensives other than thiazides. Tolerance may occur, usually between second and third month of therapy; increased dosage or adding a thiazide frequently restores effective control. Patients with impaired renal function may respond to smaller doses. Syncope in older patients may be related to increased sensitivity and advanced arteriosclerotic vascular disease; this may be avoided by lower doses.

**How Supplied:** Tablets, containing 125 mg methyldopa each, in bottles of 100; Tablets, containing 250 mg methyldopa each, in single-unit packages of 100 and bottles of 100 and 1000; Tablets, containing 500 mg methyldopa each, in single-unit packages of 100 and bottles of 100.

**For more detailed information, consult your MSD representative or see full prescribing information. Merck Sharp & Dohme, Division of Merck & Co., Inc., West Point, Pa. 19486**

J6AM07 (707)

**MSD** MERCK SHARP & DOHME



**2 General Practitioners** wanted to locate in Central Alabama town with 17,000 population and a trade area of 35,000 population. Good 68 bed hospital, located near large city with specialty consultants available. Excellent fishing, camping, hunting, golf and schools. Excellent location to raise and family and practice medicine. Healthy stable economy. On call days only, nights and weekends covered. Office suites available rent free for the first 12 months, also other financial assistance available; including moving expenses, also interested parties can be offered invitations to visit with expenses paid. PW-11.

**Emergency Dept. Physicians—Full Time Physicians** needed to staff busy Emergency Department at 486 bed hospital in North Alabama. Compensation is hourly and averages \$50,000 per year for 42-45 hour week. Additional fringe benefits include: 3 weeks vacation, 2 weeks sick leave, 2 weeks educational leave and free malpractice insurance. Excellent multi-specialty back-up available and affiliation with medical school. PW-6.

**General Practitioner Wanted**—Town of 6,000 population, trade area of 11,000 population, located in East Central Alabama. Hospital located 10 miles away. Metropolitan center located 35 miles distance. Office space located in Clinic building owned by the City, available for lease, or

lease purchase. Attractive housing available. One physician in the town. Industrial area. Sixteen churches, 4 schools. Social activities include golf course, country clubs, tennis courts. PW-7

**Primary Care Physician** wanted to locate in Northern Alabama town with a population of 14,000 with a county population of approximately 55,000. New modern 100-bed hospital with full range of services including availability of specialist in most fields and coverage of the Emergency Department every night and weekends. Office suites are available rent free and other financial arrangements can be made relative to guaranteed minimum incomes and relocation and moving expenses. This area is noted for excellent secondary schools in addition to the availability of fishing, camping, hunting and other recreation opportunities. PW-12.

**General Practitioner**—Opportunity in central Alabama town of 5,000 population with a trade area of 30,000 population, with a trade area of 30,000 population. Located 30 miles east of Montgomery, Alabama, and 28 miles west of Auburn University. Adjacent to Lake Martin. A new 77-bed hospital with a new Medical Arts Complex adjoining with office space available. Guaranteed income for a General Practitioner or Family Physician. PW-4. ●

*A unique hospital specializing in treatment of...*

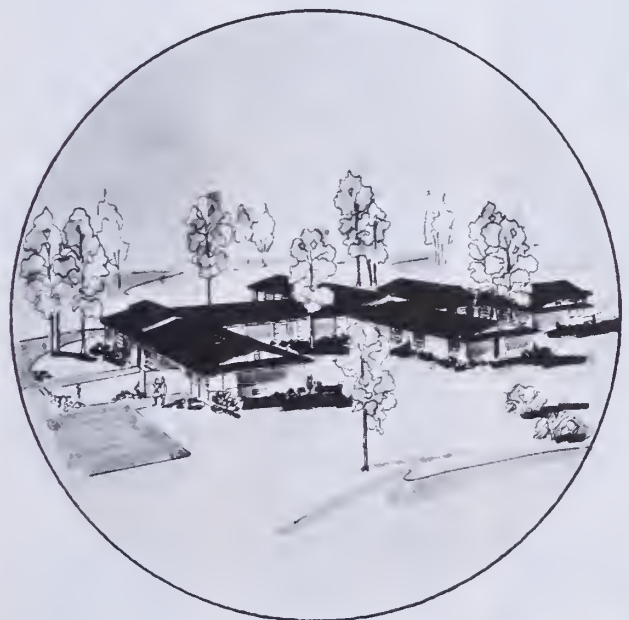
## ALCOHOLISM DRUG ADDICTION

In this restful setting away from pressures and free from distractions, the Willingway staff, with understanding and compassion, carries out an intensive program of therapy based on honesty and responsibility. The concepts and methods are original, different and have been highly successful for fifteen years.

John Mooney, Jr., M.D., Director  
Dorothy R. Mooney, Associate Director

*Willingway Hospital*

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ACCREDITED BY THE J. C. A. H.

## New physicians licensed to practice in Alabama



**ARMSTRONG**, George Foster, Jr., M.D., Duke University School of Medicine, 1962. Reciprocity with Georgia. Specialty: Pediatrics; Pediatric Cardiology.



**CARSON**, Homer Shannon, III, M.D., Medical College of Georgia, 1968. Reciprocity with Georgia. Specialty: Anesthesiology. Location: Dothan.



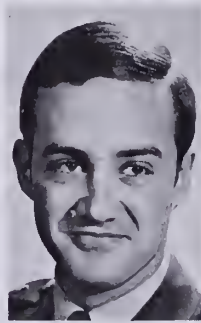
**ELSAS**, Frederick John, M.D., Duke University School of Medicine, 1968. Reciprocity with National Board of Medical Examiners. Specialty: Ophthalmology. Location: Birmingham.



**FEE**, Bruce Edgar, M.D., Creighton University School of Medicine, 1972. Reciprocity with National Board of Medical Examiners. Specialty: Radiology. Location: Ft. Rucker.



**ARMSTRONG**, Nancy Eileen Stover, M.D., University of Texas Health Sciences Center (Dallas), 1974. Reciprocity with National Board of Medical Examiners.



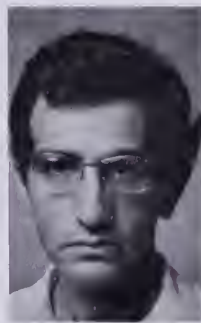
**COCHRAN**, Henry Stewart, M.D., Bowman Gray School of Medicine, 1975. Reciprocity with National Board of Medical Examiners. Location: Ft. Rucker.



**FRIDAY**, William Curtis, Jr., M.D., University of Alabama School of Medicine, 1974. Reciprocity with National Board of Medical Examiners. Specialty: Internal Medicine. Location: Sylacauga.



**BRADLEY**, James Lucas, M.D., Wayne State University School of Medicine, 1975. Reciprocity with National Board of Medical Examiners. Location: Birmingham.



**COHEN**, Fred Louis, M.D., University of Miami School of Medicine, 1968. Reciprocity with National Board of Medical Examiners. Specialty: General Surgery; Neurological Surgery.



**GEARHART**, John Rathmann, M.D., University of Missouri-Columbia School of Medicine, 1974. Reciprocity with National Board of Medical Examiners. Location: Ft. Rucker.



**BRYANT**, John William, M.D., Medical College of Virginia, 1972. Reciprocity with National Board of Medical Examiners. Specialty: OB/Gyn. Location: Ft. McClellan.



**CURRY**, George Clyde, M.D., University of Texas Health Sciences Center (Dallas), 1962. Reciprocity with Texas. Specialty: Radiology. Location: Birmingham.



**GENDZWILL**, Joyce, M.D., University of Michigan Medical School, 1952. Reciprocity with Michigan. Location: Montgomery.





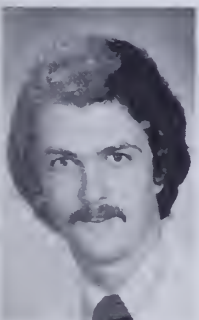
GREENE, William Eugene, M.D., Howard University College of Medicine, 1951. Reciprocity with California. Specialty: Pathology. Location: Tuskegee.



GRILLO-REY, Ricardo, M.D., Javeriana University Medical School (Columbia), 1967. Reciprocity with Michigan (FLEX). Specialty: Internal Medicine. Location: Birmingham.



HOLBROOK, Carter Tate, III, M.D., University of North Carolina School of Medicine, 1975. Reciprocity with North Carolina (FLEX). Location: Birmingham.



HOWARD, Michael William, M.D., University of Alabama School of Medicine, 1974. Reciprocity with National Board of Medical Examiners. Location: Birmingham.



HUDSON, Ronald Mercer, M.D., Medical College of Georgia, 1972. Reciprocity with Georgia. Specialty: Family Practice.



HUGHES, Joseph George, M.D., University of Alabama School of Medicine, 1974. Reciprocity with National Board of Medical Examiners. Location: Birmingham.



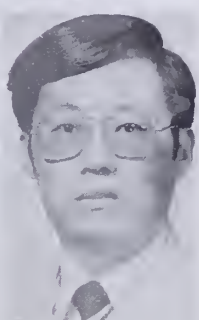
KANCHER, Leonard Barry, M.D., LSU School of Medicine (Shreveport), 1973. Reciprocity with Louisiana (FLEX). Location: Montgomery.



KING, Thomas Ivan, M.D., University of Alabama School of Medicine, 1974. Reciprocity with National Board of Medical Examiners. Location: Birmingham.



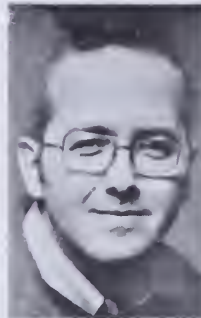
LAMBERTH, Edwin Lewis, Jr., M.D., University of Virginia School of Medicine, 1967. Reciprocity with Virginia. Specialty: Nephrology; Internal Medicine. Location: Mobile.



LEE, Hank S., M.D., Catholic Medical College (Korea), 1966. Reciprocity with Ohio (FLEX). Specialty: Surgery. Location: Haleyville.



MAYER, Thomas Milton, M.D., University of Cincinnati College of Medicine, 1971. Reciprocity with Ohio (FLEX). Specialty: General Surgery; Otolaryngology. Location: Montgomery.



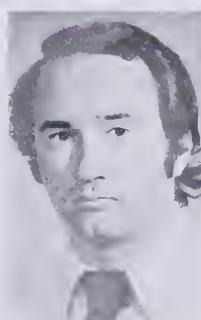
MILHOLLAND, Arthur Vincent, M.D., University of Maryland School of Medicine, 1969. Reciprocity with National Board of Medical Examiners. Location: Birmingham.



NXUMALO, Joseph Lucky, M.D., University of Toronto Faculty of Medicine, 1968. Reciprocity with New York (FLEX). Specialty: General Surgery. Location: Montgomery.



PASS, Mary Ann Blair, M.D., University of Alabama School of Medicine, 1974. Reciprocity with National Board of Medical Examiners. Location: Birmingham.



PASS, Robert Floyd, M.D., University of Alabama School of Medicine, 1973. Reciprocity with National Board of Medical Examiners. Specialty: Pediatrics. Location: Birmingham.

# Digest of actions of the State Board of Censors

*The State Board of Censors, at its regular meeting on December 15, 1976, took the following actions:*

- Approved the proposed 1977 Budget.
- Approved expenses for Dr. Rice and Mr. Conner to attend the AMA 5th Annual National Leadership Conference to be held January 20-23, 1977, in Chicago and left one position open for a member for the Board who would like to attend.
- Approved expenses for Mr. Whitaker to attend the State

Health Legislation Regional meeting sponsored by AMA on January 6-8, 1977, in Orlando, Florida.

- Approved distribution of Counsellorships.
- Adopted proposed amendment to MASA Bylaws relating to other medical meetings being held at the time of MASA's Annual Session as a policy of the Association rather than a section of the Bulaws.
- Authorized that a binder containing the Standing Policies of the Medical Association of the State of Alabama be initiated for reference.

- Adopted proposed amendment to MASA's Bylaws relating to central billing for dues for county societies, MASA and AMA and directed that central billing be encouraged at the local levels in order to expedite administrative procedure at the MASA Central Office.

- Adopted amendment to MASA's Bylaws to provide for indemnification of officers or employees.

- Received as information an update on the feasibility of Tel-Med being made available by MASA on a statewide basis.

- Received a report from Dr. Smith and Mr. Conner on the financial feasibility of a public relations campaign and directed that the Association not employ an outside public relations firm.

- Authorized Mr. Conner, Mr. Stallings and the other members of the staff to proceed with the proposed programs for a public relations campaign outlined in Mr. Stallings' memorandum. Directed that definite recommendations be presented to the Board for further consideration.

- Directed Mr. Conner, Mr. Stallings and the other members of the staff to present specific recommendations to the Board regarding the overall improvement of the *Journal*.

- Received as information a memorandum from Mr. Stallings regarding nominations for the 1977 Annual Awards.

- Approved the following appointments to the District Peer Review Committees: District 1: A. A. Windham (Franklin), reappointed, A. L. Sewell (Marion), reappointed.

- District 2: A. A. Stamler (Morgan), reappointed, Herbert S. Street (Morgan), reappointed.

- District 3: Jack W. Wilson (Madison), H. L. Anderson, Jr. (Madison), reappointed.

- District 4: Joe Burleson (Tuscaloosa), Syd Alexander (Tuscaloosa).

- District 5: F. L. Crocker (Cullman), reappointed, E. A. O'Rear, Jr. (Walker), reappointed.

- District 6: John B. Isbell, III (DeKalb), Ellann McCrory (DeKalb).

- District 7: Willis D. C. Israel (Randolph), reappointed chairman, Cecil P. Horne (Clay).

- District 8: Charles R. Kessler (Jefferson), R. L. Tieszen (Jefferson), reappointed, William T. Edge (Jefferson).

- I. B. Patton (Blount), appointed chairman.

- District 9: S. E. Graham (Jefferson), reappointed chairman, G. C. Buck, Jr. (Jefferson), reappointed, M. C. Ragsdale, III (Jefferson), reappointed.

- District 10: H. N. Carmichael (Jefferson), reappointed chairman, J. M. McMahon (Jefferson), reappointed, William F. Owens, Jr. (Jefferson), J. C. Denton (Jefferson), reappointed.

## Digest of actions—State Committee of Public Health

*The State Committee of Public Health, at its meeting on December 15, 1976, took the following actions:*

- Conducted a joint meeting and public hearing with the Emergency Medical Services Advisory Board of proposed rule changes for EMS regulating the fluid and drug program for EMT-Intermediate and Paramedics. Following the hearing, the proposed rule change was adopted as published.

- Conducted a public hearing on the 1977 Medical Facilities Plan, formerly known as the Hill-Burton Plan, making appropriate revisions as required and permitted under Federal regulations. The Plan was unanimously approved.

- Approved the initial Issuance of Assurance of Need for 16 facilities and extended Assurance of Need for 2 facilities.

- Extended application of Fair Haven Nursing Home, Birmingham, for one month contingent upon their request, to be furnished in writing.

- Was advised that the State Health Coordinating Committee held its organizational meeting on December 6 and elected Dr. S. Richardson Hill, Jr., Chairman, and Mr. Dean Byrd, Vice Chairman. The next meeting of the SHCC will be in Montgomery on February 10, 1977.

- Approved a Certificate of Need bill for Legislative introduction.

- Received a report on influenza immunization covering approximately 30% of the eligible total population and 35% of those over 65 years of age.

- Received a progress report on tuberculosis and the current treatment program.

- Received a report on the reduction in the Venereal Disease budget of \$165,000 and recommended that an approach be made to the Governor in seeking funds to continue the program at its present level.

- Approved a Medicaid Plan Amendment.

- Denied Medicaid coverage claim for Podiatry services.

- Delayed implementation of scheduled Medicaid cuts enacted in November to March 1, 1977 based on the Governor's financial assistance for nursing homes.

- Received a progress report from representatives of the Nursing Home Association who are cooperating with the State Health Department and with the University of Alabama School of Public and Allied Health in Birmingham, for a cost containment pilot study in nursing homes.

- Referred to the Council on Prevention of Disease and Medical Care the study of Health Manpower and methods of continuing funding for Venereal Disease and Gonorrhea culture pick-up systems. ●



## Auxiliary

Mrs. George F. Scofield  
President

WHERE DO WE GO  
FROM HERE?



The election is over. The shouting and the tumult have died. We look at the races we won and look at those we lost. We call our committees together and review and assess strategies and workers in campaigns. So, now what do we do?

In Alabama in 1978, we will elect a governor, a lieutenant governor, attorney general, 35 Alabama Senators and 105 Alabama House members. It is not too soon to begin to regroup. The 1978 campaign begins now.

As physicians and spouses, we have a unique opportunity to be identified with a national political action committee — AMPAC — and a state political action committee — ALAPAC. Political giving is an investment in good government and by giving collectively medicine's efforts are identified and multiplied. Now is the time to

District 11: L. E. Kirkland (Shelby), J. W. Harris (Jefferson), and M. L. Duggan (Jefferson).

District 12: W. O. Owings (Bibb), reappointed; appointed for chairman, Albert F. Jackson (Tuscaloosa)

District 13: R. A. Harris (Montgomery), reappointed chairman, W. U. Cawthon (Montgomery), reappointed, H. S. Durham (Montgomery), reappointed, M. V. Parker (Montgomery), reappointed, (alternate chairman).

District 14: W. D. Lazenby (Lee), reappointed, Joseph R. Gladden (Chambers)

District 15: R. D. Land (Choctaw), B. B. Kimbrough (Mobile) and W. R. Green (Mobile)

District 16: J. R. Moore (Mobile), reappointed chairman, Francis W. Sullivan (Mobile), William I. Park III (Mobile), James C. Pierce (Mobile)

District 17: R. W. Larrimore (Clarke), H. C. Mullins, Jr. (Baldwin), reappointed.

District 18: J. G. Dunn, Jr. (Covington), reappointed, Aubrey B. Lee (Covington).

District 19: R. C. McClintock, Jr. (Houston), James C. Doyle (Barbour).

District 20: J. C. Brantley (Pike), D. L. McCall, Jr. (Dallas), reappointed chairman.

- Approved proposed bill to provide for the definition of death and the proposed bill to amend the Medical Practice Act to provide for the licensing of physicians in approved residency training programs.

- Approved the 38 percent increase in premium rates proposed by Employers of Wausau and Mr. Bernard Webb, actuary.

## AROUND THE STATE

send membership contributions for 1977. January 1st began the new fiscal year. Mail your check for \$50 (\$60 will include your spouse) to ALAPAC, 19 So. Jackson Street, Montgomery, Alabama, 36104. This will include \$10 membership contribution to AMPAC. To be a sustaining member, send your contribution of \$99. Now ALAPAC dues are tax deductible (up to \$200) or they can be taken as a direct dollar for dollar credit on taxes due. ALAPAC now has 453 members. Compare this to MASA's membership. Need I say more?

The most productive and effective political work is done through political parties. In Alabama in many local elections, it is necessary to be bipartisan and the recent election proved that all Alabamians do not vote straight tickets. Select the party you can best support and get involved. It is never too late. There is always the next ballot.

Make friends of the representatives just elected in your district. Let them know you are interested in them and in how they vote. Help them to be informed on health matters. Don't wait until there is a controversial issue or heated debate. Invite the legislators and their spouses to meet with your medical society and auxiliary members. In this way, when you need to communicate you are not strangers to each other.

Serve as "Doctor for the Day" in the Legislature. Take your spouses along. You will learn much about the legislative process as well as contribute a needed and appreciated service.

Recruit a candidate from the medical community. There is a parable in the Bible, found in the 9th chapter of Judges. It seems all the trees got together to elect a king. The olive tree refused, not wanting to quit producing olive oil that blesses God and man, just to wave to and fro over the other trees. The fig tree also refused, preferring to produce sweetness and fruit than to lift her head above all the other trees. When the grapevine was asked it refused, saying, "Shall I quit producing the wine that cheers both God and man, just to be mightier than all the other trees?" But the bramble bush gladly accepted. It said, "If you really want me, come and humble yourself beneath my shade! If you refuse, left fire flame forth from me and burn down the great cedars of Lebanon!"

Are we content to sit under the shade of the bramble bush? Or will we assume a responsible place of leadership? The AMPAC brochure makes this statement: "Politics is not something to avoid or abolish or destroy. It is a condition, like the atmosphere we breathe. It is something to live, to influence if we wish and to control if we can. We must master its ways or we shall be mastered by those who do." ●

Pres.—Mrs. George F. Scofield/Pres.-Elect—Mrs. John S. Taylor/First Vice-Pres.—Mrs. Aubrey Terry/NE Vice-Pres.—Mrs. Eugene H. Bradley/SE Vice-Pres.—Mrs. Rufus Lee/SW Vice Pres.—Mrs. William P. Basoon/NW Vice-Pres.—Mrs. Wilfred Yeargan/AMASA Editor—Mrs. William Smith.

CONTINUED ON PAGE 55

## DEAN'S REPORT:

A primary objective in establishing the College of Community Health Sciences at Tuscaloosa was to provide better health care for the people of smaller towns and rural areas of Alabama. A major approach in meeting this objective is the training of family physicians, highly competent in modern scientific medicine, compassionate in the care of patients, and motivated to practice in small groups in the smaller towns of Alabama where the need is great. An integral part of the family practice residency program is a two-month preceptorship with a board-certified family physician or group of physicians in one of the smaller towns of the State. The objective is to enable the resident to experience life and the practice of medicine as it actually occurs within these communities, and to hope that they will elect to establish their practice in such communities, and to hope that they will elect to establish their practice in such communities. The rural preceptorship is scheduled during the second year of their three-year training period.

The program is too new and too few residents have had a rural preceptorship to date to permit definite conclusions as to the value of this experience. However, the six residents who have completed their rural preceptorship were interviewed in some depth to obtain clues as to whether or not we were on the right track. Rural preceptorship experience elsewhere with medical students appears to have turned as many or more medical students away from small-town practice as were attracted to it.

It must be admitted that our initial sample upon which this report is based, is not a cross-section of residents generally and has some other built-in biases. First, these were all family practice residents who presumably, but not necessarily irrevocably, have made a commitment to family practice as a career as opposed to a traditional specialty. Second, almost without exception, these residents and their wives (when married) came from small towns originally. Many of us believe that the young physician who grows up in a small town is more likely to return there for practice than his colleague raised in a metropolitan area, especially if his wife is also from a small town. Finally, almost all of these residents either were from Alabama or had Alabama ties. How important these various factors will prove to be as determinants of location to practice when one considers a larger number of residents with a broader spectrum of backgrounds remains to be seen.

To my initial embarrassment as a medical education administrator, I found that these experiences were almost totally unstructured. There were virtually no detailed written objectives and no list of required experiences or curriculum. However, residents and preceptors have been asked to evaluate the experience and each other. All of the preceptors were highly respected family physicians and well known to the faculty of the College of Community Health Sciences. These physicians have all worked closely with us during the early and difficult period of our development, and had given us much help, both in terms of working time and moral support. As I reflect upon the reports of the residents' experiences, it may be that much of their value lay in the fact that they were unstructured, that the preceptors were free to give

each resident, to the best of his ability, the kind of experience that he thought would prove valuable.

What do the residents say? First, the negative. Virtually all residents said that they would not practice solo or alone; they wanted at least one partner if not more. Some residents stated that the preceptorship experience would impose a real hardship upon the residents wife and family if his wife was working and his wife and children (if any) could not accompany him. In many cases, the wives and families were able to accompany the residents, however. Some commented that the social life in the community to

## **"What the Family Practice Residents Say About the Rural Preceptorship Experience"**

which they were assigned was poor; there was nothing to do aside from work. Some of the local physicians invited the residents to dinner and some of the residents with families found nice neighbors, but otherwise, for a few but not all, life seemed pretty sterile. Some wished they had a colleague of about their own age with whom they could share experiences while on the preceptorship. The rural preceptorship was not regarded as an experience in which the resident learned much scientific medicine as such, although all of the residents thought the quality of medicine practiced in their communities and by their preceptor was good.

Essentially these were all the negative comments and were so far outweighed by the enthusiastic, positive comments that one can only conclude that the preceptorship experience was the highpoint in their training program to date. As our interviewer said, after it was all over, and she is not a member of the teaching faculty with a vested interest in the outcome; "The rural preceptorship is great; it is the best thing we are doing."

All of the residents said they saw and did a lot of things that they never saw or could do in Tuscaloosa, and that back-up help was always available. One commented that he felt rather negative about the experience before he did his rotation but he said, "I feel good about it now. People don't want to move and be uprooted for two months. The next time I move from here for any length of time is when I am not coming back again. The moving is the only bad part about it."

Many expressed the desire to have an additional one or two more months of preceptorship experience in their



third year (a desire which we cannot accommodate because of the restrictions of the accrediting body in allowing only two months of training in a three-year period away from the home base.) In most instances, the preceptorship experience confirmed their desire to practice in a small town within Alabama. It gave them confidence that they could practice good medicine in a small town. The residents also learned things in which they were deficient, things they would concentrate upon when they returned to their home base in Tuscaloosa.

The residents learned to be more independent, to trust their own clinical judgment more and to be less dependent upon the laboratory and consultants. One resident said: "You didn't have laboratory results at your fingertips at night, but you could always call in laboratory personnel. You found out just how much you could handle without having instant laboratory results. On many patients you had to make decisions without having laboratory results, or do what little laboratory work was required on your own. You could call someone in to do those things. However, after three o'clock in the morning you try to avoid calling someone at home. I learned that you didn't always have to have the laboratory work done immediately. Often it could wait for several hours."

Another resident said: "I did a lot of things I never thought I would do before I went down there. I had a gentleman come into the clinic one day who was on oral hypoglycemic medication. The blood sugar was running about 400-450. I told him that his medication probably would not hold him and that he would have to be started on insulin and he said fine. To do that, I told him I would put him in a hospital and he said, 'I am not going to the hospital.' He came into the clinic about every other day for two weeks, and we started him on insulin very cautiously, and he did quite well. I had never put anybody on insulin who was not in the hospital before. I had another patient come into the office with four grams of hemoglobin complaining he was a little tired. The need for health care? We see that in much greater volume in communities such as the one in which I served. If you can practice medicine there you can practice anywhere, because that is the kind of practice that occurs in a small town. This experience ought to be mandatory. There is no way you can reproduce it in the Family Practice Center in Tuscaloosa. It is just a different world."

Another aspect of the experience was a new perspective on the doctor-patient relationship. One resident said: "I think my experience had a lot to do with medicine but very little about the treatment of sore throats. It was the talent of my preceptor as a person and as a physician. Sometimes five minutes before five ten people would walk into the office. He was very tolerant of them. Instead of getting upset, he just saw those ten people and got them out. His method of medicine was just a very good thing to learn." He went on to say: "Most of the time you are on your own. My preceptor was an easy person with whom to work. He let you make your own mistakes and get yourself out of them as long as it didn't jeopardize the patient. I consider my preceptor one of my greatest friends; he is a gentleman."

This resident went on to say: "The experience did

change my feelings about medicine in one way. You can't practice medicine and be just half way committed to it, at least not in the community where I was. If you enter the practice of medicine, you must want to do it all the way, not just half the way and grow cows or do farming the other half. As for my preceptor, I never once heard him raise his voice, get upset, or say anything derogatory about any patient we had during my two months there."

Some of the residents had a particular interest in the community life and activities and office management, particularly one who served his preceptorship in an area where he thought he might like to practice. He went to the service club every week, talked with people in the community on the physician's search committee who wanted to know what he thought the town could do to recruit a physician. He did research on the population served by that community, city and county fees for doctors, the school system, the availability of nurses, the hospital disaster plan, the health department, the opportunity for his wife's employment, the political environment and industry. He checked out how his preceptor's office ran and doesn't feel that it can be improved much. He stated: "My ideas of selecting a place to go are not necessarily finding out all you can about the medical situation, because your medical situation is going to be what you make it. My primary question concerning the place would be: would I want to live there if I was running a general store? Second, I would want to find out about the school system."

This particular resident liked the community and decided that his preceptor is practicing as good or better medicine than the people in Tuscaloosa. "He is practicing very good, up-to-date, compassionate medicine."

Another resident said he did get involved in the community. Several of the people he met took him hunting. He was invited to the local service club and to the weekly bridge club in which a number of physicians engage. He stated it was absolutely essential to live in the community to become a part of these activities to learn what living and practicing medicine in a small town is like.

What conclusions can one reach from these experiences? Although the sample is small and atypical, the reactions would tend to reinforce what many of us believe, that we are more likely to persuade physicians to practice in the smaller towns if they and their wives come from such communities than we are likely to attract those raised in metropolitan areas.

This limited sample suggests that the communities which really want physicians, need to pay more attention to the residents and students who rotate through these communities, to really involve them and their wives in the

CONTINUED ON PAGE 62

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By  
**WILLIAM R. WILLARD, M.D.**  
Dean of the College of Community Health Sciences  
University of Alabama  
Tuscaloosa

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# Continuing Medical Education

## RHEUMATOLOGY

### Questions 1-3

A 54-year old woman with a 19-year history of chronic arthritis was hospitalized because of increasing disability and recurrent bronchopneumonia during the past year. Current antirheumatic therapy includes: aspirin 2.4 gm/day; indomethacin (Indocin), 75 mg/day; and prednisone, 12.5 mg/day.

On physical examination severe deformities of her hands, wrists, knees, ankles and feet were found. There were subcutaneous nodules over her elbows, occiput and sacrum; a 12- by 12-mm skin ulcer was present over the lateral aspect of her right ankle. Cutaneous lesions of psoriasis were evident on her scalp, elbows, trunk and knees. Her spleen was palpable 6 cm below the left costal margin, and there was moderate diffuse lymph node enlargement.

#### Laboratory studies:

Hemoglobin	8.8 gm/100 ml
Leukocyte count	2100/cu mm (25 per cent neutrophils; 70 per cent lymphocytes; 5 per cent monocytes)
Platelet count	110,000/cu mm
Urine	1+protein, 20-30 WBC/Hpf

A roentgenogram of the chest showed bilateral basal infiltrates, more pronounced on the right side.

- Each of the following laboratory findings is likely to be reported for this patient EXCEPT
  - latex fixation test for rheumatoid factors—negative
  - serum iron—low; latent iron-binding capacity—low
  - biopsy of lymph node—hyperplasia
  - antinuclear antibody test (immunofluorescent method)—positive
  - bone marrow—increased iron stores
- Which of the following is most likely responsible for her splenomegaly?
  - Associated lympho-reticular neoplasm
  - Systemic lupus erythematosus
  - Amyloidosis
  - Severe rheumatoid arthritis (Felty's syndrome)
  - Psoriasis
- The strongest indication for splenectomy in this patient is
  - the degree of splenomegaly
  - a platelet count of 110,000/cu mm
  - leukopenia
  - recurrent bronchopneumonia
  - anemia
- Which of the following agents often used for treatment of rheumatoid arthritis is contraindicated in the treatment of psoriatic arthritis?
  - Salicylates
  - Indomethacin (Indocin)
  - Chloroquine phosphate
  - Corticosteroids
  - Immunosuppressives (folic acid antagonists)

- Each of the following drugs has been implicated in the development of drug-induced systemic lupus erythematosus EXCEPT
  - diphenylhydantoin (Dilantin)
  - hydralazine (Apresoline)
  - chlorothiazide (Diuril)
  - isoniazid
  - sulfonamides
- Skeletal demineralization is frequently found in association with each of the following EXCEPT
  - the postmenopausal state
  - hyperparathyroidism
  - rheumatoid arthritis
  - hypoparathyroidism
  - corticosteroid therapy
- Each of the following is characteristic of adult rheumatoid arthritis EXCEPT
  - morning stiffness of joints lasting longer than 1 hr
  - soft tissue swelling of multiple joints
  - inflammation of zygapophyseal joints
  - subcutaneous nodules at pressure points
  - symmetrical joint involvement
- A 66-year-old man has had an acutely swollen ankle for three days. He states that he has had three or four attacks in various joints or tendons during the past month; the onset of each attack was abrupt, and each subsided spontaneously in one to four days. On the basis of these findings alone, each of the following should be included in the differential diagnosis EXCEPT
  - gout
  - pseudogout (chondrocalcinosis)
  - polymyalgia rheumatica
  - palindromic rheumatism
  - gonococcal arthritis
- The clinical use of allopurinol (Zyloprim) may cause each of the following undesirable effects EXCEPT
  - leukopenia
  - dermatitis
  - increased incidence of acute gouty attacks
  - xanthine stones in the ureter or bladder
  - hypoxanthine stones in the ureter
- Each of the following is characteristic of fibrositis EXCEPT
  - tension state
  - muscle stiffness most marked on arising in the morning
  - absence of joint involvement
  - local areas of spastic, tender muscle
  - muscular weakness and atrophy

#### CORRECT ANSWERS

5.	C	10.	E
4.	C	9.	E
3.	D	8.	C
2.	D	7.	C
1.	A	6.	D



# CME CALENDAR

## JANUARY

- January 19-22, Fifth Annual Conference on Psychomatic Obstetrics and Gynecology, Grand Hotel, Point Clear, Alabama. Sponsored by American College of Obstetricians and Gynecologists.
- January 20-22, 7th Annual Postgraduate Course In Gastroenterology, Ochsner Medical Foundation, New Orleans.
- January 24-26, "Recent Advances in Care of the Acutely Injured," Fairmont Hotel, New Orleans. Sponsored: American College of Surgeons and Tulane Medical Center.
- January 28-30, 73rd Congress on Medical Education, Palmer House, Chicago. AMA Sponsor.
- January 28-30, Southern Radiological Conference Annual Meeting, Grand Hotel, Point Clear, Alabama. For further information contact Dr. J. W. Maxwell, P. O. Box 214, Mobile, Alabama, 36601.
- January 30-February 4, 12th Annual Scientific Assembly, Am. Society of Contemporary Medicine and Surgery, Diplomat Hotel, Hollywood, Fla.
- January 30-February 5, 12th Annual Scientific Assembly, Am. Society of Contemporary Ophthalmology, Diplomat Hotel, Hollywood, Florida. Approved for 42 hours Category 1 credit, A.M.A. and Certificate of Advanced Studies In Ophthalmology. Contact: Dr. John Bellows, 30 N. Michigan Ave., Chicago, Il. 60602.
- January 31-February 1, First International Glaucoma Congress, Diplomat Hotel, Hollywood, Fla.

## FEBRUARY

- February 3-5, "Vascular Surgery—Updated," Ochsner Medical Foundation, New Orleans.
- February 4-6, National Conference on the Impaired Physician, Hyatt Regency Hotel, Atlanta, Ga. Contact: AMA Dept. of Mental Health, 535 N. Dearborn St., Chicago, Illinois 60610.
- February 5-6, AMA Regional Meeting, Hyatt House, Birmingham, Alabama.
- February 7-11, "Management of Acute and Chronic Respiratory Failure," Konover Hotel, Miami Beach, Florida. Sponsored by American College of Chest Physicians.
- February 8-9, "Surgery, 1977," Ambulatory Care Center, UAH School of Primary Medical Care, Huntsville.
- February 9-11, "Modern Endocrinology" Course, New Orleans, La. Co-sponsored by Ochsner Medical Institutions.
- February 10-11, "Progress in Obstetrics and Gynecology," Kahler Plaza Hotel, Birmingham, Alabama. Sponsored by UAB School of Medicine.
- February 17-18, "Fourth Annual Family Therapy Symposium," Kahler Plaza Hotel, Birmingham, Alabama. Sponsored by UAB School of Medicine.
- February 20-26, "Seventh Family Medicine Review, Session III," Univ. of Kentucky Medical Center, Lexington, Ky.
- February 26-27, Annual Anesthesiology Review Course, "Issues and Answers In Anesthetic Practice—Anesthesia and the Nervous System," New Basic Science Bldg., Univ. of Alabama, Birmingham. Appropriate cme credit applied for. Contact: M. Clifford Holcomb, M.D., Assoc. Dir., Graduate Training Program, Dept. of Anes., UAB, 35294.

## MARCH

- March 2-4, 30th Annual Symposium on Fundamental Cancer Research, Shamrock Hilton, Houston.
- March 9-11, "Second Annual Suncoast Trauma Seminar," University of South Florida College of Medicine, Tampa, Florida. Limited registration. Contact: Dr. Roger T. Sherman, Dept. of Surgery, Univ. of South Florida College of Medicine, Box 16, 12901 North 30th St., Tampa 3612.

- March 18-20, "Emergency Medicine: Clinical-Radiological Correlation," Pointe West Resort, Phoenix, Arizona. Contact: Austin Sandrock, M.D., Dept. of Radiology, Maricopa County General Hospital, 2601 East Roosevelt, Phoenix 85008.

- March 26-27, "Workshop in Pediatric Radiology," Marriott Hotel, New Orleans, La. Sponsored by Institute For Pediatric Radiology.

- March 30-April 1, "30th National Conference On Rural Health," Washington Plaza, Seattle, Washington. Sponsored by AMA.

## APRIL

- April 14-16, MASA's 116th Annual Meeting, Mobile, Alabama.

## PHYSICIAN PRACTICE EXPENSES

CONTINUED FROM PAGE 25

rate while physicians' fees increased at a 6.2 percent. Examination of the three practice expenses with the highest yearly increases over the period 1968-73 shows professional liability insurance rising 25.6 percent; other insurance rising 16.8 percent; and nonphysician services rising 13.5 percent.

### Cross-sectional Examination of Factors Associated with Practice Expenses

Cross-sectional examination of differences in expenses among various types of practices may suggest ways of reducing or at least moderating future increases in expenses. The cross-tabulations utilized are between a weighted measure of practice expenses per visit and selected variables identified in the literature as influencing practice expenses. Highlights of this analysis indicate that: board certified physicians consistently have higher expenses than nonboard certified physicians; for some specialties solo physicians have lower expenses than nonsolo physicians; and increasing patient volume is consistently associated with decreasing practice expenses per visit.

### Econometric Model of Practice Unit Expenses and Physicians' Fees

A model is developed to investigate the relationship between practice expenses and physicians' fees, as well as the determinants of practice expenses. If expenses are important in determining fees then it is desirable to be able to identify those physicians with high practice expenses. The model consists of two equations: the first explains the determinants of physician fees; the second explains variations in unit practice expenses. The model is estimated separately for each specialty considered.

### Conclusions

The results tend to indicate that policy options for reducing practice unit expenses may be very limited. Certain important trends in health care delivery such as an increasing percentage of physicians receiving board certification, growth of large group practice, and increased employment of allied health workers are found to be associated with higher practice expenses per visit. To the extent that within the organization of the health care system, higher practice expenses per visit ultimately result in higher health care cost trends, even higher costs should be anticipated. ●

# Bureau of Preventable Diseases

FREDERICK S. WOLF, M.D., DIRECTOR

## MEASLES

As of November 30, Alabama was the only state in the Union with no reported cases of measles during 1976. Physicians are encouraged to continue immunization against measles and rubella.

## INFLUENZA

On Friday afternoon, November 19, Denny Donnell, Jr., M.D., Missouri State epidemiologist, reported a serodiagnosis of swine influenza in Missouri. The patient is a 32-year-old man from Concordia, Lafayette County, in West Central Missouri. He became ill on about October 10 with cough, sore throat, and low grade fever. His acute sera was obtained on October 20 and his convalescent sera on November 13. The hemagglutination inhibition titer to A/New Jersey increased from 1:10 to 1:80, while the titers to A/Victoria remained at 1:10 and to B/Hong Kong at 1:20. These titers have been confirmed by the Center for Disease Control. The patient received monovalent influenza vaccine the day his convalescent serum was drawn. There has been some increase in respiratory illness noted in the community where this patient lives and in a college population residing in the same county.

Dr. Donnell's office initiated an investigation on November 19, serum is being obtained from family members, close contacts of the patient, and persons with recent history of flu-like illness. Diagnostic specimens are being obtained from acutely ill individuals in the community.

One preschool age child of the patient has a recent history of febrile upper respiratory illness. Of twenty specimens obtained from persons in the community who were recently ill with flu-like symptoms four had titers to A/New Jersey. Three of these were in patients over 50 years of age who had titers of 320, 80, and 20. These titers would not be unexpected in this age group. One of the patients was a 20-year-old female with a titer to A/New Jersey of 1:10. It was reported that this patient had an onset of illness approximately 3-10 days previously. Additional serologic and diagnostic specimens are being obtained and tested to determine if person-to-person transmission of A/New Jersey influenza virus has occurred.

Mass immunization clinics have been held in all 67 counties in the State. By the end of November, approximately 647,174 doses of influenza vaccine had been administered to Alabamians by physicians, mass immunization clinics, industry clinics, and local health departments. Additional clinics are being scheduled by local

health departments to administer vaccine to those who have not yet received vaccine protection.

Bivalent and monovalent vaccines are available to physicians through local health departments. Alabama has received a more than adequate supply of bivalent vaccine during the immunization program. If physicians choose to do so, they may lower age restrictions on recipients of bivalent vaccine to age 60.

Monovalent split virus vaccine for healthy children age three through 17, is available through local health departments. Physicians should notify their local health department as to their vaccine needs.

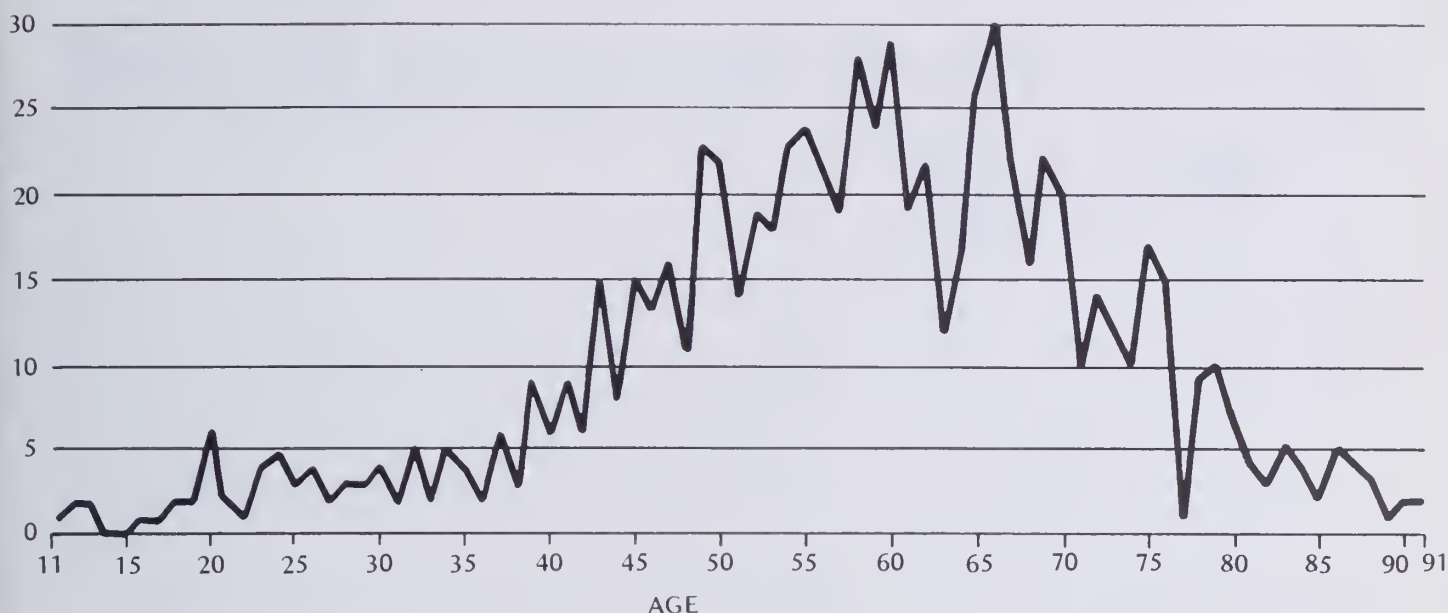
The cooperation of physicians and health department personnel has contributed greatly to the statewide influenza immunization program. Your efforts are appreciated.

## CURRENT MORBIDITY STATISTICS—1976

	October	November	*E.E. November
Tuberculosis	69	55	71
Syphilis	25	30	41
Gonorrhea	2,447	1,627	1,223
Chancroid	0	0	0
Typhoid fever	0	0	0
Salmonella	41	25	20
Undulant fever	0	0	0
Shigella	13	5	12
Amebic dysentery	3	0	0
Scarlet fever & strep. throat	468	425	613
Diphtheria	0	0	0
Whooping cough	2	0	2
Meningitis	15	16	8
Tularemia	0	0	0
Tetanus	0	0	0
Poliomyelitis	0	0	0
Encephalitis	15	11	0
Smallpox	0	0	0
Measles	0	0	1
German measles	0	0	6
Chickenpox	29	58	20
Mumps	18	31	37
Hepatitis	36	23	41
Typhus fever	0	0	0
Rocky Mt. spotted fever	3	1	1
Malaria	0	1	1
Rheumatic fever	1	0	7
Rheumatic heart	6	8	15
Influenza	12	15	75
Pneumonia	215	245	282
Rabies — Human cases	0	0	0
Pos. animal heads	0	0	0

As reported by physicians and including deaths not reported as cases. \*E.E.—The estimated expectancy represents the median incidence of the past nine years.





## THE CENTRAL CANCER REGISTRY OF THE STATE OF ALABAMA

### OVARIAN CARCINOMA—ICDA CODE 183.0 1970 - 1974

by

Frederick S. Wolf, M.D., Director, Bureau of Preventable Diseases, and Arthur M. Lavalley, R.N., J.D., Administrator and Consultant, Division of Cancer Control.

Records on file with the Central Cancer Registry of the State of Alabama indicate that 799 cases of Ovarian Carcinoma were diagnosed by Alabama physicians within the five-year period from 1970 thru 1974 and that 94.3% of these cases were histologically proven. Of the 647 cases histologically proven, 86% were tumors of epithelial origin; 9% were of unspecified tissue origin; 4% were of embryonal and mixed tissues while 1% were of other tissue origin.

The youngest of these 799 patients was eleven years of age and the oldest was ninety-one. Further there were eleven patients under twenty years of age while 134 were between the ages of twenty and forty-five. There were 160 from seventy to ninety-one inclusive.

During this five year period the Ovarian Carcinoma average annual morbidity rate for the state was 4.4 per 100,000. There were 678 recorded ovarian cancer deaths during the same five-year period, however, these were not necessarily the newly diagnosed cases.

Statistics such as those which made this review possible are available to you from The Central Cancer Registry of The State of Alabama, State Office Building — Room 250, Montgomery, Alabama 36130. ●

Alabama Department of Public Health  
Special Services Administration  
Division of Vital Statistics  
Forest E. Ludden, ED.D., Director  
Provisional Statistics  
September, 1976

VITAL EVENT	NUMBER RECORDED			RATES		
	TOTAL	WHITE	NON-WHITE	1976	1975	1974
Live Births	5,095	3,219	1,876	17.5	16.3	19.2
Deaths	2,580	1,820	760	8.9	8.9	9.0
Fetal Deaths	69	39	30	13.5	14.8	15.6
Infant Deaths - Under 28 Days	73	33	40	14.3	15.2	12.9
Under 1 Year	89	45	44	17.5	19.9	18.3
Maternal Deaths	3	-	3	5.9	2.1	3.6

CAUSES OF DEATH						
Bacillary dysentery, amebiasis, 004, 006	-	-	-	-	-	-
Enteritis, other diarrheal diseases, 008, 009	9	5	4	3.1	2.8	3.1
Tuberculosis, all forms, 010-019	12	8	4	4.3	2.1	1.0
Diphtheria, 032	-	-	-	-	-	-
Whooping Cough, 033	-	-	-	-	-	-
Meningococcal infections, 036	-	-	-	-	-	0.3
Poliomyelitis (acute), 040-043	-	-	-	-	-	-
Measles, 055	-	-	-	-	-	0.3
Syphilis, 090-097	1	1	-	0.3	-	-
Malignant Neoplasms, 140-209	634	364	270	176.7	163.4	161.1
Diabetes Mellitus, 250	46	38	8	12.8	12.9	18.0
Major cardiovascular diseases, 390-448	1,201	869	332	412.2	426.2	440.1
Diseases of heart, 390-398, 402, 404, 410-429	792	596	196	272.8	282.7	304.5
Rheumatic fever & heart, 390-398	9	7	2	3.1	3.1	3.8
Hypertensive heart & renal disease, 402, 404	12	4	8	4.1	5.5	6.2
Ischemic heart disease, 410-414	656	502	154	225.1	231.8	254.1
Cerebrovascular Disease, 430-438	343	227	116	117.7	117.6	109.2
Diseases of Arteries, 440-448	50	36	14	17.2	22.4	11.4
Influenza, 470-474	-	-	-	-	-	-
Pneumonia, 480-486	41	34	7	14.1	15.1	19.7
Bronchitis, emphysema & asthma, 490-493	21	18	3	7.2	7.9	9.7
Appendicitis, 540-543	-	-	-	-	-	0.3
Hernia, intestinal obstr., 550-553, 560	9	4	5	3.1	1.7	4.5
Cirrhosis of liver, 571	26	20	6	8.9	12.4	9.7
Complications of preg., childbirth, 630-678	3	-	3	1.0	0.3	0.7
Congenital anomalies, 740-759	14	9	5	4.8	11.4	10.4
Immaturity, 777	6	3	3	2.1	3.1	3.5
Accidents, total, 800-949	161	112	49	51.8	48.8	56.7
Motor Vehicle accidents, 810-823, 940	71	54	17	24.8	27.9	29.0
All other causes (defined)	369	235	134	126.6	119.0	115.1
Symptoms & ill-defined, 780-796	156	82	74	53.5	51.9	46.7

\*Rates: Births and Deaths - per 1,000 population.  
Infant Deaths - per 1,000 live births.  
Fetal Deaths - per 1,000 live births.  
Maternal Deaths - per 10,000 live births.  
Deaths from specified causes - per 100,000 population.

**DARKFIELD MICROSCOPY is available to physicians at no cost by calling 832-3205 at any time. A technician and equipment will be dispatched to your office.**

# All oral bronchodilators are pretty much the same. Right? Wrong!

The difference is in their action—both before and after symptoms begin. That's the reason for TEDRAL<sup>®</sup>.

- ☐ effective and prolonged bronchodilation from the synergistic effect of ephedrine and theophylline
- ☐  $\beta$ -ADRENERGIC ACTION RELAXES BRONCHIAL SMOOTH MUSCLE
- ☐  $\alpha$ -ADRENERGIC ACTION REDUCES BRONCHIAL EDEMA AND SECRETIONS
- ☐ dosage forms to meet individual patient needs

For proven performance...

## Tedral<sup>®</sup>/Tedral SA<sup>®</sup>/Tedral Elixir<sup>®</sup>

Each tablet contains 130 mg theophylline, 24 mg ephedrine hydrochloride, and 8 mg phenobarbital

Each tablet contains 180 mg anhydrous theophylline (90 mg in the immediate release layer and 90 mg in the sustained release layer), 48 mg ephedrine hydrochloride (16 mg in the immediate release layer and 32 mg in the sustained release layer), and 25 mg phenobarbital in the immediate release layer

Each 5 ml teaspoonful contains 32.5 mg theophylline, 6 mg ephedrine HCl, and 2 mg phenobarbital, the alcohol content is 15%.

See next page for brief summary

### SUSTAINED ACTION



**WARNER/CHILCOTT**  
Division, Warner-Lambert Company  
Morris Plains, New Jersey 07950

T-GP-72-B/W



## TEDRAL®

### TEDRAL® SA Sustained Action

### TEDRAL® Elixir

**CAUTION:** Federal law prohibits dispensing Tedral SA without prescription.

**Description.** Tedral; each tablet contains 130 mg theophylline, 24 mg ephedrine hydrochloride, and 8 mg phenobarbital.

Tedral SA; each tablet contains 180 mg anhydrous theophylline (90 mg in the immediate release layer and 90 mg in the sustained release layer); 48 mg ephedrine hydrochloride (16 mg in the immediate release layer and 32 mg in the sustained release layer); 25 mg phenobarbital in the immediate release layer.

Tedral Elixir; each 5 ml teaspoonful contains 32.5 mg theophylline, 6 mg ephedrine hydrochloride, and 2 mg phenobarbital; the alcohol content is 15%.

**Indications.** Tedral, Tedral SA, and Tedral Elixir are indicated for the symptomatic relief of bronchial asthma, asthmatic bronchitis, and other bronchospastic disorders. They may also be used prophylactically to abort or minimize asthmatic attacks and are of value in managing occasional, seasonal or perennial asthma.

Tedral SA (Sustained Action) offers the convenience of b.i.d. dosage.

Tedral Elixir is convenient for persons who may have difficulty in swallowing tablets.

These Tedral formulations are adjuncts in the total management of the asthmatic patient. Acute or severe asthmatic attacks may necessitate supplemental therapy with other drugs by inhalation or other parenteral routes.

**Contraindications.** Sensitivity to any of the ingredients; porphyria.

**Warnings.** Drowsiness may occur. PHENOBARBITAL MAY BE HABIT-FORMING.

**Precautions.** Use with caution in the presence of cardiovascular disease, severe hypertension, hyperthyroidism, prostatic hypertrophy, or glaucoma.

**Adverse Reactions.** Mild epigastric distress, palpitation, tremulousness, insomnia, difficulty of micturition, and CNS stimulation have been reported.

**Average Dosage.** *Prophylactic or Therapeutic.*

**Tedral: Adults**—One or two tablets every 4 hours. **Children**—(Over 60 lb) one-half the adult dose.

**Tedral SA: Adults**—One tablet on arising and one tablet 12 hours later. Tablets should not be chewed. **Children**—Not established for children under 12.

**Tedral Elixir: Note:** One teaspoonful is equivalent to one-quarter Tedral tablet. **Children**—One teaspoonful per 30 lb body weight, every 4-6 hours, unless prescribed otherwise by physician. Should be given to children under 2 years of age only with extreme caution. **Adults**—One to two tablespoonfuls every four hours.

**Supplied.** Tedral: White, uncoated scored tablets in bottles of 24 (N 0047-0230-24), 100 (N 0047-0230-51) and 1000 (N 0047-0230-60). Also in Unit Dose—package of 10 x 10 strips (N 0047-0230-11).

Tedral SA: Double-layered, uncoated, coral/mottled white tablets in bottles of 100 (N 0047-0231-51) and 1000 (N 0047-0231-60). Also in Unit Dose—package of 10 x 10 strips (N 0047-0231-11).

Tedral Elixir: Dark red and cherry-flavored in 474 ml (16 fl oz) bottles (N 0047-0242-16).

STORE BETWEEN 59° and 86°F (15° and 30°C).

Full information is available on request.

## DIGEST OF ACTIONS— STATE BOARD OF CENSORS

CONTINUED FROM PAGE 47

- Directed that the President and Secretary-Treasurer of each county medical society be contacted by WATS line to be reminded that physicians should join the Mutual Assurance Society of Alabama by December 31, 1976, to avoid the \$500 sur-charge and also, a letter from Dr. Wright be sent to every member of the Association containing this information and that the letter be addressed to the physician and marked, "Personal".
- Received as information the American Medical Association Regional Postgraduate CME Program to be held February 5-6, 1977, in Birmingham.
- Appointed Dr. Carl Grote and Dr. Ronald Henderson to serve on the Board of Medical Scholarship Awards.
- Appointed Ronald Henderson as chairman of an Ad-Hoc Committee to educate new members of peer review committees as to proper procedures. ●

## AMA PUBLISHES NEW EDITION OF MENTAL RETARDATION MANUAL

Mental retardation is the most handicapping of all childhood disorders declares the new third edition of the AMA's handbook for physicians on mental retardation.

The United States includes more than six million individuals who are retarded. Some one hundred thousand more are born each year. Probably a much larger number, never identified, function ineffectively throughout life, says the AMA book.

The new edition was prepared under direction of a board of three editoris: Julius B. Richmond, M.D., chairman, and George Tarjan, M.D., and Robert S. Mendelsohn, M.D.

The editors declare:

"The responsibility for the optimal use of the accumulated skill and information (about retardation) will fall upon the practicing physician, especially the one who makes first contact with the retarded individual and his family."

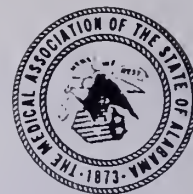
The physician in practice is faced first with the diagnostic problem, and the initial chapters of the book tell how to determine whether an individual is retarded. This is followed by chapters on how to manage the patient, including use of all available community resources, public and private.

The doctor also is likely to see more retarded patients because of the increased emphasis on keeping them in the community and the family, rather than sending them to institutions. By aiding the retarded to remain in the community, the physician helps to increase the status of the retarded person as a "more human" and therefore less threatening member of society.

The book is available from the Order Department, AMA, 535 N. Dearborn St., Chicago, Ill. 60610. ●



# **Report Of The Alabama Delegates To The 30th Clinical Convention Of The American Medical Association December 4-8, 1976 Philadelphia, Pennsylvania**



**DELEGATES**  
Paul W. Burleson, M.D.  
Birmingham  
O. Emfinger, M.D.  
Union Springs  
W. E. White, M.D.  
Anniston

**ALTERNATES**  
E. B. Glenn, M.D.  
Birmingham  
Alfred Habeeb, M.D.\*  
Birmingham  
Julius Michaelson, M.D.  
Foley  
\*Absent

TO: Members of The Medical Association of The State of Alabama  
SUBJECT: Report of the 30th Clinical Convention of the American Medical Association

The Medical Association of The State of Alabama was represented by its elected Delegates and Alternate Delegates together with William T. Wright, M.D., President of the Association, John B. Rice, Jr., M.D., President-Elect, and Leon C. Hamrick, M.D., Chairman of the Board of Censors (the latter acted as an Alternate Delegate in the absence of Alfred Habeeb, M.D., who was unable to attend the Convention). In addition, staff was represented by Mr. Lon Conner and Mr. Jack Mooresmith.

The delegation held a caucus on Sunday morning, at which time Reference Committee assignments were made. The Delegates briefed the delegation on key issues which were to come before the House and these were discussed and tentative strategy planned. Subsequent caucuses were held on Monday and Tuesday mornings.

The House of Delegates convened in the Grand Ballroom of the Sheraton Hotel at 2:00 P.M., on Sunday afternoon. It was chaired by Dr. Tom Nesbitt of Nashville, Tennessee, Speaker of the House. Dr. Richard Palmer, of Alexandria, Virginia, gave the Presidential Address, "Go Forward—Always Go Forward."

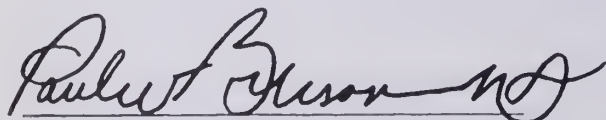
Other highlights of the Opening Session included a Bicentennial presentation, the Benjamin Rush Award was made by Dr. Palmer and a special presentation regarding the establishment of the American Medical Association by Dr. John Hubbard, President of the College of Physicians at Philadelphia.

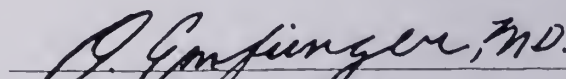
Reference Committee meetings were held on Monday which considered various resolutions from state associations and delegations, together with position reports from the Board of Trustees and Councils of the American Medical Association. These were discussed and debated in the Reference Committees.

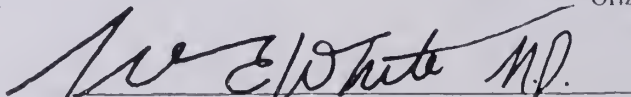
The Second and Third Sessions of the House of Delegates were held on Tuesday and Wednesday at which time the Reference Committee Reports were presented individually to the House by the chairmen of the Reference Committees and the issues were debated on the floor.

A summary of the actions of the House of Delegates is herewith submitted.

Respectfully submitted,

  
Paul W. Burleson, M.D., Chairman

  
Orizaba Emfinger, M.D.

  
William E. White, M.D.





**NHI DEBATE:** Delegates line up at every available microphone during heated debate over the NHI issue.

## National Health Insurance

The AMA will again introduce a bill for national health insurance when the 95th Congress convenes next year!

AMA delegates voted 181-57 to continue Association sponsorship of an NHI bill. The vote was a convincing victory for the AMA board and leadership and a decisive defeat for the more conservative members of the house.

The NHI debate was **THE** issue at the convention, providing four hours of testimony before a reference committee and two hours of debate on the house floor. The conservative challenge to an AMA-backed NHI bill, however, never really had a chance.

The La. delegation, a persistent critic of AMA-sponsored NHI bills, had introduced a resolution calling for AMA to abandon its NHI bill, essentially a proposal dating back eight years and designed to build upon the strengths of the existing system, and to use half of its 1976 reserve—about \$6 million—to mount an all-out public education campaign against NHI.

Other calls against NHI came from the Nebraska, Illinois, South Carolina, and New Mexico delegations. The New England delegation introduced a resolution supporting the AMA's current NHI proposal, the Comprehensive Health Care Insurance Act of 1975 (HR 6222).

Opening salvo of the NHI fight was fired Dec. 5 at the opening of the house when AMA President Richard Palmer, MD, in a strongly worded speech, called on delegates to continue to have an aggressive posture on NHI by backing "6222" and to "Go forward—always go forward."

Dr. Palmer's support of 6222 was backed by endorsements from the AMA Board of Trustees and the Councils on Medical Service and Legislation.

Delegates ultimately voted to retain AMA sponsorship of 6222. The house upheld the board and the councils on legislation and medical service by agreeing with the reference committee recommendation: "Not only is the committee impressed with the preponderance of testimony in support of HR 6222, but also with the substantive merit of that testimony...this

bill embodies the principles approved by this house and represents a viable mechanism to advance the Association's views on this subject."

## HSA Law

Action on Health Systems Agencies highlighted the non-NHI legislative portion of the AMA's 1976 Clinical Convention.

Delegates directed the board to review the law for possibly beneficial amendments consistent with the outcome of the lawsuit filed against the federal health planning act by AMA and North Carolina. The house opposed the creation of a National HSA Coordinating Committee.

HSA resolutions referred to the board for consideration request that the AMA:

- Recommend that implementation of the act be placed in a federal agency other than the Dept. of Health, Education, and Welfare.
- Establish as a legislative priority the replacement of the act with health





Dr. Mario E. Ramirez (r) was presented the Dr. Benjamin Rush Bicentennial Award for citizenship and public service by Dr. Palmer.

planning principles acceptable to organized medicine.

- Seek a minimum of 13 amendments to the law.
- Review draft monographs on criteria and standards now being developed by HEW.
- Maintain an effective role in health planning.
- Seek an increase in practicing MDs' representation on HSA boards.

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### Primary Care Policy

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The House of Delegates reaffirmed its formal definition of primary care specialties at the Philadelphia convention, turning down a strong bid to refuse to designate any field as "primary."

General practice, family practice, internal medicine, pediatrics, and obstetrics-gynecology are still the AMA's choices as formal primary care specialties.

The decision repeats that made at the Annual Convention in Dallas, at which the AMA for the first time formally designated the primary care fields.

The issue came up in response to several resolutions at the Philadelphia meeting asking the AMA to either redefine primary care more broadly or adopt a position of refusing to define the term at all.

The delegates voted by a narrow margin to accept the report of the

Council on Medical Service reaffirming the AMA's definition of primary care specialties.

The report also pointed out that the named fields were not the sole providers of primary care, and that the definition should not be construed to mean that patients should not have free choice of any physician, regardless of specialty.

The report also recommended that all residency programs, whether in primary care specialties or not, should provide some training in primary medicine.

*(At stake in the controversy over designation is the potential for federal funding of education programs in primary care fields through the new health manpower legislation and through other future possible programs.)*

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### JCAH Policies

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The House of Delegates approved four Board of Trustees reports concerning relations between organized medicine and accrediting mechanisms and policies of the Joint Commission on Accreditation of Hospitals.

One related to whether state medical associations should ensure that hospital bylaws in their states conform with JCAH guidelines.

The board concluded that continuous surveys by state societies would only duplicate JCAH activities.

It pointed out that neither the AMA nor state medical associations possess any jurisdiction to require hospital bylaws to conform to JCAH guidelines.

Another report concerned a request that the board review the JCAH guidelines. The board said the due process portion of the guidelines had not been changed since its publication in 1971.

A third report dealt with state or regional responsibility for JCAH function. After reviewing the matter, the board said that increasing participation of local physicians in JCAH accreditation activities would strengthen the voluntary accreditation process, increase its acceptability, and improve the quality of medical care. Such participation can be best worked out by states, according to their resources of money, staff, and available, interested physicians, the board said.

A final report concerned medical audit and utilization review procedures. The board said that cooperative action between JCAH and peer review organizations established by physicians should be encouraged. It recommended that JCAH inform local peer review groups of its minimal requirements for medical care evaluation and utilization review in hospitals. When local peer review groups have evidence that hospitals have met JCAH requirements, the information should be provided to JCAH, the board said.

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### Handling Of Drugs

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The House of Delegates approved two resolutions related to the handling of drugs in the U.S.

One resolution called for the AMA to oppose the illegal distribution of any prescription drug sample to practitioners not authorized by laws to prescribe or administer the drug.

In reference committee testimony, several physicians expressed concern that drug salesmen in some areas of



the country have provided drug samples to practitioners not legally authorized to order or administer prescription drug products.

The second resolution expressed opposition to the revision of state laws and pharmacy regulations that prohibit unauthorized substitution of prescription drug products, or the substitution of generic for prescribed brand-name drugs.

The resolution also urged physicians to supplement medical considerations with cost considerations in prescribing.

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### "Expert Witness" Study

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The AMA will study ways to improve the handling of "expert witnesses" in medical malpractice cases.

The House of Delegates referred to the Board of Trustees, seeking a June 1977 report, a New York-sponsored resolution urging the AMA to back changes in tort rules, permitting expert witnesses to testify only as a "friend of the court," and not on one side or the other of litigation.

The reference committee advised the delegates that, although testimony to the committee overwhelmingly favored the resolution, difficult problems were associated with the concept of having courts accept only unbiased witnesses. Such a rule might make it more difficult for physician defendants to obtain their own expert witnesses.

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### Medical Discipline

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A program to assure proper medical discipline was authorized by delegates in approving the final report of the Association's Ad Hoc Committee on Medical Discipline.

Testimony emphasized that the committee had not found a cause-and-effect relationship between the medical disciplinary system and malpractice claims.

The house endorsed a program urging:

- That the teaching of medical ethics and discipline in formal courses and informal seminars and discussions be mandated in American medical schools, graduate medical education programs, and at local medical society level.
- That state medical associations become active participants in a continuing review of existing medical licensure and disciplinary mechanisms, and seek, with cooperation of state hospital associations, legislative changes to assure more adequate funding, reporting systems, and investigatory staff for the responsible state licensing system.
- That organized medicine assume leadership in the development of programs to encourage physicians to improve the review of the quality of medical care.

---

### Membership Guidelines Broadened

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With an amendment to the bylaws, the AMA House of Delegates officially extended civil rights protection in medical society membership and activities to women and foreign-born physicians.

In the amended bylaws, the words "national origin, or sex" are added, completing the statement that "membership in the American Medical Association or in any of its constituent associations shall not be abridged on account of color, creed, race, religion, ethnic origin, national origin, or sex."

The reference committee report pointed out that in the past, the Judicial Council had interpreted the existing amendment to include women and foreign-born physicians. The added words reaffirm a long-standing commitment to equal opportunity for all in medical society activities, medical education and training, employment, and all other aspects of medical professional endeavors.

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### Section On Medical Schools

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The AMA took a giant step toward bridging the gap between practicing physicians and medical educators with the creation of a new Section on Medical Schools in the House of Delegates.

The section will be open to all accredited U.S. medical schools, and will have a delegate in the house at the next meeting, in June at San Francisco.

The action came following presentation of a Board of Trustees report recommending formation of the section. The Council on Medical Education, after discussing the idea with many medical school deans, who all supported the concept, had voted in September to endorse formation of the new section.

The board's report noted that the



Opening session of the House of Delegates of the AMA's 30th Clinical Convention in Philadelphia, Pa.

idea of a section for medical schools had been discussed for the past 20 years, but that the vast increase in numbers of schools, educators, and medical students in recent years made creation of the new section more necessary.

The report also noted that Congressional interest in medical education in recent years, through manpower legislation, had created some common interests among practitioners and educators—as well as a greater need for unity in the profession.

The delegates approved creation of the new section, also approving bylaws changes to permit its formation.

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### Full-Time President

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The concept of a full-time salaried president for the American Medical Association was referred to the board and Council on Long Range Planning and Development by the House of Delegates for further study and for a report at the 1977 annual meeting.

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### 5,210 attend

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A total of 5,210 people, including 2,806 physicians, registered for the AMA's last Clinical Convention ever, in Philadelphia.

Physicians were the largest component of registrants, followed by their wives and guests, a total of 1,493. A total of 257 medical students, 104 allied health professionals, and 56 registered nurses also registered for the clinical session, held Dec. 4-8.

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### President's Message

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The president of the American Medical Association strongly urged members not to "turn their backs" on the national health insurance (NHI) debates, in a speech to the House of Delegates in Philadelphia.

"If we are to offer nothing in the way of NHI legislation," Richard E. Palmer, MD, told the delegates, "we run the terrible risk of getting clob-

bered with everything," referring to the mandatory, comprehensive Kennedy-Corman NHI bill.

Quoting Gen. George S. Patton's advice to "always go forward," Dr. Palmer said the AMA "must be fully prepared" for NHI, since it now seems inevitable.

The AMA stands a better chance of winning an acceptable form of NHI now than it had in 1965, when Congress passed Medicare in favor of the AMA's proposed Eldercare legislation, Dr. Palmer said.

Both liberals and conservatives in Congress are now more wary of passing massive social legislation than they were in 1965, the "great society" years.

Many people now agree that "the great society has become a fiscally overweight society," Dr. Palmer said.

The AMA's role in the NHI debates should be to actively press for its own programs, in defense of patients and practitioners, especially since the nation will soon have a President who is unlikely to veto any comprehensive NHI bill passed by Congress, Dr. Palmer said.

One of Congress' and the public's greatest concerns now is the rising cost of medical care, and Dr. Palmer cited the AMA's own positive efforts to demonstrate its own interest in controlling costs.

The AMA established its National Commission on the Cost of Medical Care, with representatives of all factions and political persuasions; the Board of Trustees endorsed the principles of the Talmadge Medicaid reform bill in the last Congress; supported on Medicaid fraud in five states; and offered model legislation to toughen disciplinary rules for state medical licensing boards.

"We oppose breadline medicine," Dr. Palmer said, not only in the Medicaid program but also in any broadbased NHI plan or Congressional or federal programs to control medical practice.

He warned that if the federal courts uphold the constitutionality of the 1974 health planning act—now being challenged in North Carolina by the AMA and others—Congress may be prompted to pass "even more arbitrary

and disruptive" amendments to the planning law.

Congress may even be likely to approve laws requiring mandatory rate regulation in all states, he said.

For all those reasons, Dr. Palmer said, physicians should help the AMA in its advocacy for the medical profession. The "militance of the AMA is on the increase," he said.

The militance is necessary to overcome the growing encroachment of the government on medical practice, he said. In response, the AMA is going forward "with all the roughness of a real union," but without the "anti-professional, anti-social" aspects of a labor union, Dr. Palmer said.

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Complete Text To Be  
Carried In The  
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Of The JOURNAL

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### AWARDS

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**Dr. Benjamin Rush Bicentennial Award**—Calling it a personal privilege, AMA President Richard E. Palmer, M.D., presented the Dr. Benjamin Rush Bicentennial Award for citizenship and public service to Mario E. Ramirez, M.D., a family physician who has been practicing in one of the poorest counties of southern Texas for the past 27 years.

**Distinguished Service Award**—The AMA's Distinguished Service Award will go to Franz J. Ingelfinger, M.D., editor of the *New England Journal of Medicine* since 1967.

The award, conferred by the House of Delegates during the Clinical Convention in Philadelphia, will be presented at the Annual Convention in San Francisco next year.

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### Last Clinical Convention

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The 30th Clinical Convention in Philadelphia was the AMA's last session under that name. In the future the House of Delegates will hold an Interim Meeting in Chicago each December, and a Winter Scientific Program will be held at approximately the same time in another city.



## Other Actions:

● On peer review matters, the house urged government indemnification for mandated health care review programs; protested the Social Security Administration's practice to reimburse for utilization review only if all hospital patients are subject to such review, and opposed certain penalties against providers set forth in the PSRO law.

● In regard to Medicare-Medicaid, delegates deplored any and all acts of fraud and called for prompt prosecution by both government and the AMA; and urged that rules for rural facilities be consistent with (1) availability of medical personnel, (2) education opportunities for technical personnel, and (3) the scope of services rendered.

● The house directed the board to continue to explore methods for improved legislative liaison, with the particular goal of expanding individual participation. Strong support was voiced for the "key man" concept in furthering legislative objectives.

● Referred to the board and the Council on Medical Service a report urging AMA involvement with industry leaders in developing guidelines for helping cut the costs of health insurance for employees.

● Rejected a proposal that the AMA establish a toll-free telephone number that members could call to ask questions and communicate with AMA headquarters in Chicago.

● Were advised of plans for a membership opinion poll, as authorized last June with the results to be reported to the house at the 1977 annual meeting.

● Retained the 69 "designated specialty codes" in the *American Medical Directory*, thus rejecting a recommendation from the 1976 annual convention that the codes be replaced with a list of the 28 AMA specialty councils.

● Called for the re-establishment of the office of Surgeon General of the U.S. Public Health Service.

● Filed a Council on Medical Service report on its communications with HEW concerning requested amendments to the Medicaid regulations governing use of federal funds for sterilization procedures. ●



Winner of the Thomas Hull Award for the best teaching exhibit was the exhibit "Central Nervous System Response To Circulatory Failure." The award was presented to Dr. Abraham Lu (l) from Dr. N. Hightower, AMA Exhibit Chairman, Council on Continuing Physician Education.

● Turned down an attempt by several state delegations to pass a resolution urging that rural physicians receive greater reimbursement under Medicare than under current regulations. The house instead reaffirmed current policy that physicians should be adequately compensated, but that payment should be according to the "usual, customary, and reasonable" guidelines.

● Directed the board to establish standard operating procedures for AMA councils, and continued the limit of two one-year terms for council chairmen.

● Referred to the board a resolution urging reduced AMA dues for physicians in the first year of practice.

● Requested the Joint Commission on Accreditation of Hospitals to make no recommendation on hospital staff membership for podiatrists and other allied health professionals, leaving this to individual hospital staffs.

● Adopted a board report outlining considerations for physicians thinking of locating offices in buildings owned or controlled by hospitals. Considerations related to use of ancillary services, rentals, relations with hospital and other physicians in rented space, and prerequisites, if any, for moving into building. ●

## DEAN'S REPORT

CONTINUED FROM PAGE 49

social life of the community and to acquaint them with its various opportunities and resources.

This limited experience would reaffirm, I believe, the value of choosing preceptors carefully, physicians who are devoted to the practice of quality medicine and who can really be role models for our future generation of family physicians.

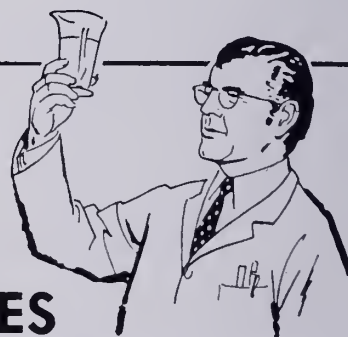
This experience also points out the desirability for the Family Practice accrediting body to permit greater flexibility in the design of programs, permitting more time in community medicine, especially in the third year when a resident, after his commitment to a small town practice gained from a preceptorship in his second year, can really study in depth the community in which he believes he would like to practice.

Should a program be more structured to ensure "quality education"? Possibly, as more and more practicing physicians become involved as preceptors, especially those who have not worked so intimately in the development of family practice programs as have those who served as preceptors for these residents. However, probably it will be best for the preceptor to design his own program within broad limits. If he is a really good physician interested in young physicians, he can design a program that fits his situation and style better than anyone else. ●

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# MEDICAL HOTLINE



**The President's Council** on Wage and Price Stability has reported that unless *business* and *labor* put controls on health care costs, the price tag will continue to increase far faster than other factors in the general economy. Conclusion: Doctors, hospitals and the Federal government are not going to control costs because there is not enough incentive to do so!

**Of further** interest, the Council also concluded that "in view of the experience so far with Medicaid and Medicare, a Federal takeover of health care would bring medical costs of truly astronomical proportions." So what else is new?

**Georgia's Department of Human Resources** (created under Jimmy Carter) will no longer serve as administrative body for the Georgia Medicaid Program after December 15. Governor George Busbee will appoint a five-member board of businessmen to handle Georgia's problem—plagued Medicaid. After all, if its going to be handled right, why not handle it like a business?

**"Doctors of the Day,"** wanted for 1977 Legislative Session! If you can serve in this important position this year from Feb.—May, particularly on Tuesdays and Thursdays, please call MASA Headquarters and select one or more dates as your schedule would allow.

**Speaking of** the state legislature, the session begins February 1. From all reports, it appears that key attention will be focused once again on the budgetary problems of the state. "Sunset Committee" recommendations will reap considerable headlines, too.

**MEDIX television series**—aired in Florence-Huntsville area, Birmingham and Montgomery—will continue in 1977 under cosponsoring by MASA and the Burroughs Wellcome Co. In 1976, it captured its 3rd Emmy Award! Mobile may be carrying it soon.

**Effective February 1, 1977,** a 38% rate increase will go into effect on all new and renewing Wausau policies. The increase will affect all basic and umbrella professional liability contracts. Wausau has agreed to renew all policies until August 1, 1977.

**Hope those Alabama Controlled Substances Registration Certificates** were received by the January 1, 1977 deadline. MASA's General Counsel reminds physicians that both their DEA (Federal) Registration Number and State Number must be on *all* controlled substance prescriptions as of January 1.

Continued on Page 64

# MEDICAL HOTLINE



Continued from Page 63

**ALAPAC** dues have tax deduction status! Join ALAPAC today and have a voice in political action. Current dues are \$50 per person. It's still the best bargain around.

**Congressional District Caucuses** are coming up in January and early February, with their actions forwarded to the Reference Committees during the Annual Meeting. The Caucuses have to meet by February 13, 1977, the 60-day cut-off date as stipulated in the Constitution and Bylaws.

**The Swine Flu Immunization** program has come to a screeching halt and as one CDC official (out of Atlanta) has stated "it is all but dead unless an epidemic hits." This program has been plagued from its inception as no other national health effort has ever been. State and Federal health officials have to be extremely frustrated over their "Pandora's Box."

**Here's your big chance!** Regional cme workshops will be held February 4-5, 1977, in Birmingham—a first for Alabama. Don't miss them!

**Be looking for the February, 1977 issue of the *Journal*!** "The Guillain-Barre' Syndrome" will be the featured scientific emphasis, prepared by James H. Halsey, Jr., M.D., UAB. We do not usually recommend like this, but with the current national interest on Guillain-Barre' and with Dr. Halsey's recent study of the syndrome, in this one instance we do make exception.



May 1977 be a healthful and prosperous year for you and yours—the whole year long! Happy New Year from the entire MASA staff.





# JOURNAL

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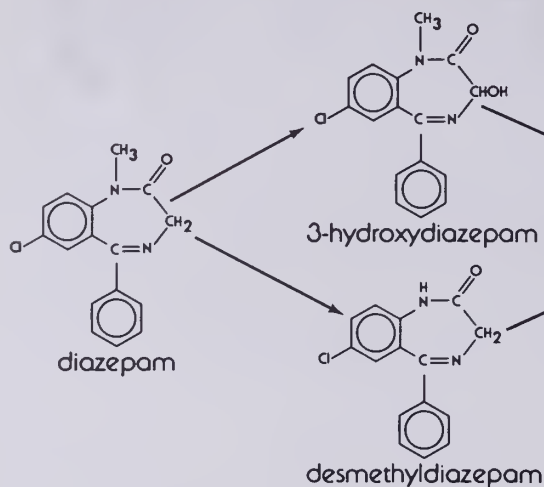
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**Precautions:** If combined with other psychotropics or anticonvulsants, consider carefully pharmacology of agents employed; drugs such as phenothiazines, narcotics, barbiturates, MAO inhibitors and other antidepressants may potentiate its action. Usual precautions indicated in patients severely depressed, or with latent depression, or with suicidal tendencies. Observe usual precautions in impaired renal or hepatic function. Limit dosage to smallest effective amount in elderly and debilitated to preclude ataxia or oversedation.

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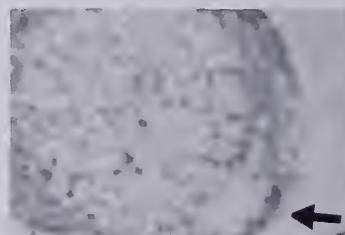
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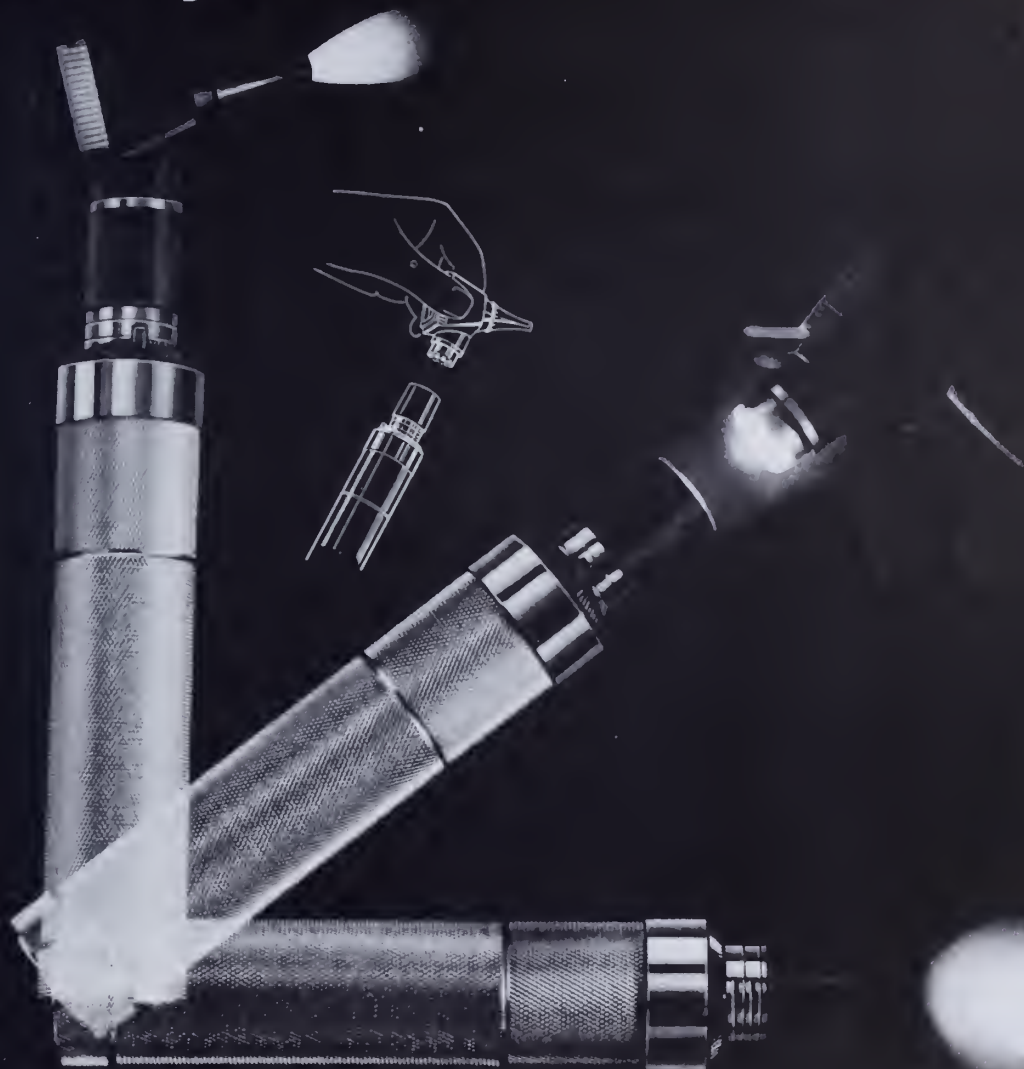
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# 19 VIEWS



Beginning with this issue of the *Journal*, we are implementing some new ideas in an attempt to make our publication one of the finest in the Nation. The front cover is taking on a new look — the design will "bleed" off the edges of the page, thus providing a more professional appearance. A new classified section is being included, both to fill an existing need and to provide a more diversified interest. A full page is being provided for the Woman's Auxiliary in order to stimulate the interest of wives and to provide them with a better forum from which to be heard.

News of medical societies from all over the State should provide an interesting subject for an additional page. Information for this section will of necessity have to come from individual doctors and county societies. If you feel that a "county medical society news page" would be an interesting addition to our *Journal*, please let us know by sending information you would like to see appear in this space.

Our advertising has been directed largely to pharmaceutical houses in the past. Our feeling is that more diversity in advertising will not only increase our revenues, but will also provide more interest for the readers.

In order to more accurately assess the progress we are making in this endeavor, we earnestly solicit your input; after all, this is your *Journal* — read it — discuss it — criticize it, and then tell us what we can do to improve it. With your interest and help, we intend to make this *Journal* a real success.

S. Lon Conner  
Executive Director

1977 Annual Meeting  
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Mobile, Alabama

## INFORMATION FOR AUTHORS CONCERNING MANUSCRIPTS

Manuscripts should be typewritten, double spaced on white paper 8½ x 11 inches with adequate margins. The original copy, not the carbon copy, should be submitted. Authority for approval of all contributions rests with the Editor. **The Journal of The Medical Association of The State of Alabama** reserves the right to edit any material submitted. The publishers accept no responsibility for opinions expressed by contributors.

### Style

The first page should list title, the author (or authors), degrees, and any institutional or other credits. Bibliographies must contain in the order given: Name of author, title of article, name of periodicals with volume, page, month — day of month if weekly — and year. Number should be limited to absolute minimum. References should be numbered consecutively in order in which they appear in the text.

### Length Of Articles

Articles should not exceed 3,000 words (approximately 3-4 printed pages). Under exceptional circumstances only will articles of more than 4,000 words be published.

### Illustrations

Illustrations should be numbered consecutively and indicated in the text. The number, indication of the top, and the author's name should be attached to the back of each illustration. Legend should be typed, numbered, and attached to each illustration. Photographs should be clear and distinct; drawings should be made in black ink (preferably India ink) on white paper. For half tones, glossy photographs should be submitted.

### Reprints

Reprint orders should be returned at once. Prices for reprints, based on numbers of pages, will be furnished upon request.

Communications should be addressed to **The Journal of The Medical Association of The State of Alabama**, P. O. Box 1900-C, Montgomery, Alabama 36104. Telephone: 263-6441, Area Code 205. ●

### ABOUT THE COVER

Our cover this month complements the timely scientific contribution by Dr. Halsey on "The Guillain-Barre' Syndrome" (page 29).

The electron micrograph of an influenza virus provided by the Alabama Department of Public Health along with the artistic touch of Alice Hyde gives our cover a new dimension and a new look. ●





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**Choledyl** — a highly soluble, true salt of theophylline — rapidly relaxes bronchospasm to promote easier breathing. And, gastric discomfort is minimal.

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**Choledyl**® (oxtriphylline) Tablets and Elixir **CAUTION:** Federal law prohibits dispensing without prescription. Each partially enteric coated tablet contains 200 mg or 100 mg oxtriphylline. Each teaspoonful of the elixir contains 100 mg oxtriphylline; alcohol 20%. **Indications:** **Choledyl** (oxtriphylline) is indicated for relief of acute bronchial asthma and for reversible bronchospasm associated with chronic bronchitis and emphysema. **Warning:** Use in pregnancy — animal studies revealed no evidence of teratogenic potential. Safety in human pregnancy has not been established; use during lactation or in patients who are or who may become pregnant requires that the potential benefits of the drug be weighed against its possible hazards to the mother and child. **Precautions:** Concurrent use of other xanthine-containing preparations may lead to adverse reactions, particularly CNS stimulation in children. **Adverse Reactions:** Gastric distress and, occasionally, palpitation and CNS stimulation have been reported. **Dosage:** Average adult dosage: Tablets — 200 mg, 4 times a day; Elixir — two teaspoonfuls, 4 times a day. **Supplied:** 200 mg yellow, partially enteric coated tablets in bottles of 100 (N 0047-0211-51) and 1000 (N 0047-0211-60); Unit Dose — 200 mg tablets (N 0047-0211-11); 100 mg red, partially enteric coated tablets in bottles of 100 (N 0047-0210-51). Elixir — bottles of 16 fl oz (1 pint) 474 ml (N 0047-0215-16). **Toxicity:** Oxtriphylline, aminophylline and caffeine appear to be more toxic to newborn than to adult rats. No teratogenic effects have been seen. Full information is available on request.

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BRONCHODILATION  
MINIMAL GASTRIC DISCOMFORT



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## NEOSPORIN® Ointment (polymyxin B-bacitracin-neomycin) is a famous fighter, too.

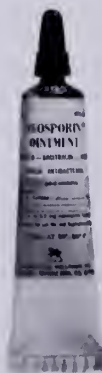
Provides overlapping, broad-spectrum antibacterial action to help combat infection caused by common susceptible pathogens (including staph and strep).

Each gram contains: Aerosporin® brand Polymyxin B Sulfate 5,000 units; zinc bacitracin 400 units; neomycin sulfate 5 mg (equivalent to 3.5 mg neomycin base); special white petrolatum qs in tubes of 1 oz and 1/2 oz and 1/32 oz (approx.) foil packets.

**INDICATIONS:** Therapeutically (as an adjunct to systemic therapy when indicated) for topical infections, primary or secondary, due to susceptible organisms, as in: • infected burns, skin grafts, surgical incisions, otitis externa • primary pyodermas (impetigo, ecthyma, sycosis vulgaris, paronychia) • secondarily infected dermatoses (eczema, herpes, and seborrheic dermatitis) • traumatic lesions, inflamed or suppurating as a result of bacterial infection.

Prophylactically, the ointment may be used to prevent bacterial contamination in burns, skin grafts, incisions, and other clean lesions. For abrasions, minor cuts and wounds accidentally incurred, its use may prevent the development of infection and permit wound healing. **CONTRAINDICATIONS:** Not for use in the eyes or external ear canal if the eardrum is perforated. This product is contraindicated in those individuals who have shown hypersensitivity to any of the components.

**WARNING:** Because of the potential hazard of nephrotoxicity and ototoxicity due to



neomycin, care should be exercised when using this product in treating extensive burns, trophic ulceration and other extensive conditions where absorption of neomycin is possible. In burns where more than 20 percent of the body surface is affected, especially if the patient has impaired renal function or is receiving other aminoglycoside antibiotics concurrently, not more than one application a day is recommended. **PRECAUTIONS:** As with other antibacterial preparations, prolonged use may result in overgrowth of nonsusceptible organisms, including fungi. Appropriate measures should be taken if this occurs. **ADVERSE REACTIONS:** Neomycin is a not uncommon cutaneous sensitizer. Articles in the current literature indicate an increase in the prevalence of persons allergic to neomycin. Ototoxicity and nephrotoxicity have been reported (see Warning section).

Complete literature available on request from Professional Services Dept. PML.



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## **Challenges Of 1977**



**WILLIAM T. WRIGHT, M.D.**

It is gratifying to experience the cooperation of so many of our members in the new malpractice insurance company, the Mutual Assurance Society of Alabama. With more than 2000 members having completed an application and committed their money prior to January 1, the company is insured of initial success. Whether this will be a lasting success depends on sound management, doctor cooperation, patient education and good medicine.

Each district caucus is selecting a representative to be an understudy for directorship in this company. These representatives should be good businessmen prepared to give time and study for good sound leadership. We doctors must keep rapport with our patients and provide the best medical care available anywhere. The day when most patients accept something as fact merely because the doctor said it so has since passed. Most patients want an explanation of what to expect including reasonable risk factors on procedures involved. If indeed malpractice is found, the patient is entitled to a reasonable compensation and the physician's ability to perform certain procedures must be looked at carefully by leadership of the insurance company. If no malpractice is found and the suit is malicious, then the case should be reviewed to see if countersuit action is indicated.

If you have not joined the insurance company yet, please do not hesitate a moment longer because the \$500 penalty enforced now will be a \$1000 penalty in less than 2 months and even at that price it is a bargain.

Dow Walker, Executive Secretary; A. Derrill Crowe, M.D., President; and C. A. Lightcap, M.D. Chairman of the Board, will be directing the operation of the new company from its headquarters in Birmingham.

I have enjoyed being invited by several county societies to visit their societies this year. I believe this is essential to keep up good grassroots communications and I hope local societies will call on me and also John Rice, M.D. when he takes over in April.

The annual Legislative Session in Alabama is now in effect. This will place increased responsibility and burden on our director of Governmental Affairs, Dickey Whitaker. He is extremely capable, but is very limited in what he can accomplish without your cooperation. This means local home contact of legislators. Every physician in Alabama should be a member of ALAPAC. ALAPAC dues are nominal and are tax deductible. If you do not belong to ALAPAC, why not join today?

*Bill*

*A unique hospital specializing in treatment of...*

## ALCOHOLISM DRUG ADDICTION

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# Letters to the Editor

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## Student Sends Thanks For AMA Trip

To: Leon C. Hamrick, M.D.  
Fairfield, Alabama

Dear Dr. Hamrick,

Let me thank you and the members of your association for the generosity and warmth extended to me during my trip to the AMA Clinical Convention in Philadelphia. I am grateful that you provided me the means of attending the convention and it was a great learning experience, both in increasing my knowledge of medicine and in adding to my appreciation of the American Medical Association as a democratic, grassroots organization that's responsive to the needs of its members.

I was made acutely aware of the fact that doctors need to band together in these days of rapid social and economic change, and the AMA provides an excellent means of presenting an organized front for the things we believe in. The AMA is indeed a servant to its members, and it was rewarding for me to observe the action of the legislative process. I was made aware of current issues that will affect the profession now and in the future.

Again, thank you for allowing me to attend the convention, and I hope to see you again soon.

Yours sincerely,  
Louis Cummings  
Vestavia Hills, Alabama

## Saw TV Spot

Gentlemen:

Your television advertisement on the Heimlich Maneuver is of interest to me in helping coordinate the company safety program.

I would be interested in obtaining materials on "the maneuver" for each employee to take home and read. I would need 50 booklets to achieve this. Please advise me of any costs involved.

I would also be interested in a poster explaining "the maneuver," which would be hung in our company First Aid Room.

I look forward to your reply.

Sincerely,  
DISCO ALUMINUM PRODUCTS, INC.  
DeWayne Roberts  
Safety Administrator

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## WHAT DO YOU THINK OF THE JOURNAL?

Let us know! Write: Letters To The Editor  
JOURNAL, P. O. Box 1900-C  
Montgomery, Alabama 36104

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## Hypothermia

Dear Sirs:

I recently read an article which told of the several deaths occurring from boating accidents in which people fell overboard. Accidents like this are far more dangerous in the wintertime than in the summertime, due to the problem of hypothermia. Hypothermia is the reduction of the body's vital core temperature.

Even a minor boating accident can cause disaster due to the cold temperature of the water at this time of the year. Someone who is immersed in water at the 60 degree range may possibly face death in a short period of time. Allergic reactions to cold can have the same effect.

I think the public should be told of the serious danger of falling overboard into the cold water and take the necessary precautions to avoid this accident.

The best protection against this is to avoid getting wet in the cold winter months.

Sincerely,  
Claude A. Frazier, M.D.  
Asheville, North Carolina ●

**The  
good  
neighbor  
is  
you.**

**Belong.**





## The Month In Washington

**HEW Secretary**—Washington lawyer, Joseph Califano, Jr., one of Lyndon Johnson's top "Great Society" architects, has been named Secretary of the Health, Education and Welfare Department.

The 45-year-old native of Brooklyn is regarded as one of the Capitol's brightest men. He knows the workings of government inside out. He knows most of the Congressmen of importance to HEW. And he knows most of the programs—many of them established during the "Great Society" days—that he will now administer.

The appointment of Califano to the politically sensitive position was the final cabinet selection by Carter, and was one of the best received. Liberals, including Ralph Nader, saw in Califano's "Great Society" background a promise of a bigger and better "Great Society"; conservatives found reassurance in Califano's reputation as a steady political veteran who is interested in cutting down on waste and inefficiency.

Most of Califano's efforts on behalf of Johnson as the President's chief domestic adviser in the mid-1960's was in the welfare and education areas rather than health where he doesn't have much of a track record.

If Carter carries out his promise to give his department heads plenty of rein in policy matters, Califano might emerge as the chief policy architect in health affairs. Certainly Carter will rely heavily on him for advice. After years as a behind-the-scenes power, Califano will now be in the limelight.

\*\*\*

**Council on Wage and Price Stability**—A concerted and united effort by industry and labor to control medical costs is needed to avert a federal takeover of health which would "result in national expenditures of truly astronomical proportions," contends the President's Council on Wage and Price Stability.

In a lengthy report on rising health care costs, the Council said "cost control incentives proposed by the private sector—that is, by industry and labor—promise to be more effective than those imposed by the multitude of government agencies which have attempted to tackle the problem...the private sector is motivated by an economic incentive which the government will simply never share."

The report said the government, in its Medicare and Medicaid programs has a poor record of controlling costs. "The blizzard of rules and regulations which would accompany full federal financing and administration of the health industry would add to costs and reduce the limited incentives that now exist for efficiency and cost containment," the Council said.

The Council said "the private sector must step up its efforts many fold—it must apply the full measure of ingenuity and management skills which are so characteristic of the American system. In short, the private sector must start doing more, a lot more."

The report mentioned "strong opposition from a highly respected, well-organized medical establishment. Private efforts at cost-control are difficult to undertake in the face of this opposition, and difficult to achieve, but we remain convinced that the goal of quality health care, at reasonable costs, is attainable within the context of a largely privately disciplined system. Indeed, we feel it is only within the context of the private system that it is attainable."

\*\*\*

**Confidentiality**—Congress is showing increased interest in the problems of maintaining confidentiality of medical records in the age of computers and vast federal medical programs. The House Commerce Subcommittee on Oversight and Investigations is considering hearings on the issue next year.

The most serious evidence of abuse so far came with state grand jury indictments in Denver, Colo., of an investigative company—Federal Service Bureau, Inc.—on charges of selling confidential records to large insurance firms. Factual was alleged to have had agents who were able to penetrate the records of the Federal Bureau of Investigation and the Internal Revenue Service, among others. Twenty defendants, including three insurance companies, have been indicted so far in the investigation. Federal agencies are also pursuing the case.

The House Oversight Subcommittee, headed by Rep. John Moss (D-Calif), is carrying on a running dispute with the Social Security Administration over the privacy of medical records in the Medicare program. "We believe very serious questions remain about privacy of records concerning individuals in custody of the Social Security Administration, especially in light of future plans," said Moss.

Social Security operates three data transmission systems which link private Medicare intermediaries with the Social Security Health Insurance Data Bank. The two less sophisticated computer systems, the Advanced Record System (ARS) used by private Medicare intermediaries in 16 locations, and the Programmable Magnetic Tape Terminals (PMTT) used by Blue Cross, Blue Shield, and all but two other private intermediaries, use record retrieval systems "which cannot be abused by any employee of a private contractor either in an authorized or unauthorized manner," said Moss. ●





# “I Cannot Tell A Lie—It Does Taste Like BANANAS!”

When acute, non-specific diarrhea causes the stomach to revolt, the tasteful counterattack is Donnagel®-PG. Donnagel-PG provides all the benefits of paregoric and—instead of that unpleasant paregoric taste—a delicious banana flavor good enough to make even an expert flip his wig.

Now with child-proof closure

## Donnagel®-PG<sup>®</sup>

Donnagel with paregoric equivalent

For diarrhea

Each 30 ml. contains:

Kaolin	6.0 g.
Pectin	142.8 mg.
Hyoscyamine sulfate	0.1037 mg.
Atropine sulfate	0.0194 mg.
Hyoscine hydrobromide	0.0065 mg.
Powdered opium, USP	24.0 mg.
(equivalent to paregoric 6 ml.)	
(warning: may be habit forming)	
Sodium benzoate	60.0 mg.
(preservative)	
Alcohol, 5%	

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# COUGHS ARE BACK



DON'T WALK  
NORTH PASS ON  
THE BRIDGE





# CLEAR THE TRACT

in coughs of colds,  
"flu" and u.r.i. —  
clear the tract  
with the famous  
Robitussin® Line!

The 5 members of the Robitussin® family all contain the expectorant, guaifenesin, to help clear the lower respiratory tract. Guaifenesin works systemically to help stimulate the output of lower respiratory tract fluid. This enhanced flow of less viscid secretions promotes ciliary action and makes thick, inspissated mucus less viscid and easier to raise. As a result, dry, unproductive coughs become more productive and less frequent.

For productive and unproductive coughs

## Robitussin®

Each 5 ml teaspoonful contains:  
Guaifenesin, NF ..... 100 mg  
Alcohol, 3.5%

For severe coughs

## Robitussin A-C®

Each 5 ml teaspoonful contains:  
Guaifenesin, NF ..... 100 mg  
Codeine Phosphate, USP ..... 10.0 mg  
(warning: may be habit forming)  
Alcohol, 3.5%

Non narcotic for 6-8-hour cough control

## Robitussin-DM®

Each 5 ml teaspoonful contains:  
Guaifenesin, NF ..... 100 mg  
Dextromethorphan  
Hydrobromide, NF ..... 15 mg  
Alcohol, 1.4%

Decongests nasal passages and sinus  
openings as it helps relieve coughs

## Robitussin-PE®

Each 5 ml teaspoonful contains:  
Guaifenesin, NF ..... 100 mg  
Pseudoephedrine  
Hydrochloride, NF ..... 30 mg  
Alcohol, 1.4%

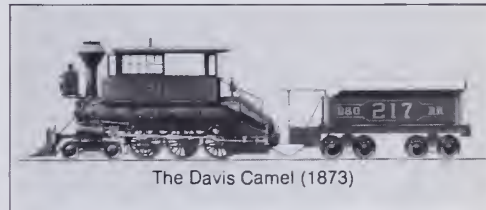
Decongestant action helps control cough and  
clear stuffy noses and sinuses. Non narcotic.

## Robitussin-CF®

Each 5 ml teaspoonful contains:  
Guaifenesin, NF ..... 50 mg  
Phenylpropanolamine  
Hydrochloride, NF ..... 12.5 mg  
Dextromethorphan  
Hydrobromide, NF ..... 10 mg  
Alcohol, 1.4%

All Robitussin formulations available on your  
Rx or Recommendation.

For many years Robins has spotlighted the expectorant action of the Robitussin cough formulations by featuring action photographs of steam engines like the one on the preceding page. In keeping with this tradition, last year the company commissioned a well-known illustrator to render full-color drawings of several classic locomotives . . . accurate to the minutest detail. Chances are you requested and received the first locomotive in this series, The William Mason, last winter. Now, the second one is available. (See below). To order your print suitable for framing, write "Robitussin Clear-Tract Engine #2" on your Rx pad and mail to "Vintage Locomotives," Dept. T4, A. H. Robins Company, 1407 Cummings Drive, Richmond, Va. 23220.



The Davis Camel (1873)

OUR PHOTO: Norfolk & Western Branch Train  
No. 202 west bound near Alvarado, Va. (Oct., 1956).  
This line reaches the highest point of any railroad  
East of the Rockies (elevation 3,577 ft.) with a  
minimum grade of 3%. It crosses 108 bridges,  
some 700 ft. long! Photo by O. Winston Link.

**A.H. ROBINS**

A. H. Robins Company, Richmond, Va. 23220

# History Of The Medical Association of The State of Alabama

*(Editor's Note: In the March, April and May, 1936, issues of THE JOURNAL, Dr. Cannon's brilliant historical manuscript about the history of MASA appeared. It was entitled "Alabama's Eighty-Nine Years of Medical Organization" and recounted those early years of creation, growth and expansion.*

*The manuscript, of course, carried events up to 1935 and as far as can be determined, the history of MASA has not been updated since that time.*

*Dr. Cannon was a former secretary-treasurer of the Association and served as state health officer from 1928-1929. He passed away December 5, 1962. The Association's prestigious medical reporter award, given*

by  
Douglas L. Cannon, M.D.



*each year to "recognize a reporter who has shown outstanding ability in the reporting of medical news," was named in his honor.)*

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## Second In A Series

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### The Association In The Seventies

In 1870, the Association met in Montgomery, March 15-17, with Dr. R. F. Michel, as its President. An interesting discussion was had on malaria, particularly of the hemorrhagic type. Dr. W. P. Reese said he was not satisfied with the name hemorrhagic malarial fever, and preferred to call the disease malignant jaundice...but if the name hemorrhagic malarial fever was adopted, he claimed for Selma priority in the use of it.

It was in this year of its history that the Association issued an address through the newspapers to the planters and landowners of the State urging the necessity of a thorough system of drainage for the purpose of diminishing the prevalence of malaria. "All doctors agree," stated the address, in part, "notwithstanding their different theories as to what the poison is, that you must have three conditions acting in conjunction to produce malarial fevers, viz: heat, moisture, and decaying vegetable matter. Now it is evident that we cannot get rid of heat; but it is equally evident that we can control, in a great measure, the other two ele-

ments necessary to the production of malarial poison."

"By a proper system of drainage we can get rid, in a great measure, of the superabundant moisture, and with a little labor judiciously directed, the superabundant vegetable matter can be destroyed previous to its natural death."

The address was signed by J. S. Weatherly, M.D., Chairman; R. F. Michel, M.D., and J. B. Gaston, M.D.

It was at the meeting of 1870, also, that Dr. Geo. A. Ketchum turned time backward to refer to the birth of the Association in 1847. "Of all that glorious band of pioneers in medical progress in Alabama which assembled at that and at subsequent meetings of the Association, how few there are who will take part in our deliberations at this annual reunion!

Here, and there, I recognize a face and a name that were familiar in those earlier meetings, but, alas, how many faces are missing, how many names are erased forever from the roll; even the old building in which was held the meeting of organization has passed away and on its site now stands the Battle House. How many who gave

dignity to those earlier meetings, and who were so earnest in their devotion to the business and interest of the organization, have passed away forever. But the names of Bolling, of Ames, of Lewis, of L. H. Anderson, of Wooten and others are inseparably connected with the medical literature of the State.

And the names of Fearn, of Echols, of Crawford, of English, of Denny, of Levert, of Mordecai, of Cabell, of Ulmer, of Lavender and of many others have been transferred from the roll of the Association to the roll of fame, and, adorning the annals of the past, they should be treasured as the bright examples of the future."

"The Association," continued Dr. Ketchum in his oration, "has given many names to adorn the current medical literature of the country. It has given a Baldwin to the National Medical Association as its presiding officer. It has given a Sims, a Boze-man, and a Nott to carry the fame and glory of American medicine and surgery into the proud capitals of Europe, and to adorn the ranks of the profession in the commercial and financial metropolis of the United States."

In 1871 and '72, there was being conceived in the brain of Dr. Jerome Cochran another notable contribution on the part of the profession of Alabama to medical organization the world over.

### Dr. Cochran's Vision

"I would have a general health law passed by the Legislature of the State, carefully prepared, so as not to stand in need of frequent revision or amendment," Dr. Cochran apprised the Association at its Huntsville session, March 26-28, 1872.

"I would have this law to invest the Medical Association of the State with the functions, powers and responsibilities of a State Board of Health, and these functions I would have exercised through such organs as the Association, in its wisdom, might think best."

"I would have the same act of the Legislature to invest each County Medical Society with the functions of a



County Board of Health, said functions to be exercised through such organs as the said county societies should, in their wisdom, determine to be best."

"If my plan for the organization of the profession of the State should be adopted," continued Dr. Cochran, "as I firmly believe that it will, because I have confidence in the sound judgment and sober second thought of the profession, then I would have the Board of Censors," explained in a subsequent paragraph, "of the State Association to have special supervision of the sanitary interests of the State, and the Boards of Censors of the several county societies to have sanitary jurisdiction of their several counties; and I would have the county medical organizations to be subordinate in this function, as in all others, to the authority of the State Association, and all to act together toward the accomplishment of a common purpose."

"Until it suited the purposes of the local authorities of any county to cooperate with the Board of Censors of the County Medical Society, by the appropriation of means and powers for the practical application of sanitary science, the health functions of such Board of Censors would be largely nominal..."

How prophetic Dr. Cochran's next assertion proved to be! "But whenever, in the judgment of the county or municipal authorities, circumstances should justify some direct practical attempts towards an improved sanitary condition, the machinery would be ready, and could be put into working order at once." What feeling of satisfaction he would experience could he see the structure erected on the foundation he laid!

#### **Constitution of 1873 Adopted**

A far step toward the attainment of the goal visualized by Dr. Cochran manifested itself when the Association, meeting in Tuscaloosa, March 25-27, adopted the Constitution of 1873. Its provisions included a State Board of Censors, composed of five members of the Association to discharge, among other functions, those attendant upon the examination of all persons proposing to practice medicine

in the State of Alabama; and a Board of Censors for each County Medical Society, which, also, was vested with the right to "examine carefully" every person, proposing thereafter to commence the practice of medicine in their respective counties; only those already granted certificates of qualification by the State Board of Censors being excepted.

#### **Board of Censors Elected**

The Constitution was adopted, the following were chosen members of the Board of Censors: Dr. Jerome Cochran, of Mobile, for five years; Dr. Jas. Guild, Sr., of Tuscaloosa, for four years; Dr. A. G. Mabry, of Selma, for three years; Dr. R. F. Michel, of Montgomery, for two years; and Dr. George E. Kumpke, of Leighton, for one year.

#### **First Report Of The Board**

The session of 1874, Selma, April 13-15, witnessed the presentation of the first annual report of the State Board of Censors. Said the report: "We have just adopted a new constitution. Many of its provisions seem strange to many. Whether it has been in all things wisely planned or not, time will show. For the present, both good faith and good policy demand that we shall all give it an earnest and loyal support. Other plans of organization have been tried for many years together, and certainly with no result of which we have any reason to be proud. The friends of this new plan believe that it will lead us through the wilderness of despair in which we have journeyed so long into the promised land of professional regeneration, which all of us have looked forward to with unsatisfied yearning. If it fails, it adds only one more to the sum of failures we have already to lament. If it succeeds, no monument of marble in our public places—no monuments of affection in our hearts—can ever adequately express our obligations to those who have originated and carried it into execution."

"But, alas! one seat is vacant." Dr. A. G. Mabry, President of the Association in the year of reorganization and the succeeding year died on the 23rd of February 1874, of pneumonia. "The medical history of Alabama...

would be incomplete," said Dr. George A. Ketchum, "did not the name of A. G. Mabry adorn its brightest page. His brain conceived this organization; he was present at its birth; he stood sponsor for it in its helpless infancy; and now, when, in its approaching maturity, he dies, he bequeathes to it the honors inseparably connected with his example and his name."

#### **The Association Becomes The Board Of Health**

The plan of a general system of Boards of Health for Alabama, submitted to the Association and endorsed by it at the annual session in Huntsville in 1872, again endorsed by the unanimous vote of the Association in Tuscaloosa in 1873, became law February 19, 1875. "Be it enacted by the General Assembly of Alabama," said the statute, "That The Medical Association of the State of Alabama, be organized in accordance with the provisions of the constitution which was adopted by said Association at its annual meeting in the City of Tuscaloosa in March 1873, be and is hereby constituted the Board of Health of the State of Alabama...That the County Medical Societies in affiliation with The Medical Association of the State of Alabama...are hereby constituted Boards of Health<sup>1</sup> for their respective counties....That no board of health, or advisory or executive medical body of any kind, for the exercise of public health functions, shall be established by authority of law in any county, town or city in this State, except such as are contemplated by the provisions of this act, the object of this prohibition being to secure a uniform system of sanitary supervision throughout the State."

#### **The Association Accepts The Responsibility**

"In order to facilitate the action of the Association in reference to this matter," set forth the Board in its report of 1875, "we have prepared the following resolutions:

*"Resolved, That The Medical Association of the State of Alabama hereby accept for themselves and for the County Medical Societies under their jurisdiction the provisions of an act entitled 'An Act to Establish Boards of*

*Health in the State of Alabama,' and approved by the Governor on the 19th day of February, A. D. 1875; and will endeavor to discharge the duties assigned to them in said act in good and with earnest purpose, to be of service to the people of Alabama."*

## First Committee Of Public Health

Concurrently, and by ordinance of the Association, a State Committee of Public Health was created, composed of Drs. George A. Ketchum, Mobile; Edward A. Semple, Montgomery; Edmund P. Gaines, Mobile; Clifford D. Parke, Selma; and S. D. Seelye, Montgomery, to be "the supervisory and immediately responsible agents of the Association in the discharge of its functions as Board of Health of the State." In 1877 this body, with the original Board, became the Board of Censors and Committee of Public Health.

## County Medical Societies Chartered

Among County Medical Societies first to apply for a charter, authorized by the parent body in 1874, were those of Autauga, Butler, Dallas (which succeeded the Selma Medical Society in 1874), Hale, Perry and Talladega in 1875; Lowndes, Mobile, Morgan, Sumter and Walker in 1876; Elmore, Jefferson, Lamar, Lawrence, Limestone, Madison, Marengo, Monroe, Shelby and Tuscaloosa in 1877; and Barbour, Blount, Etowah, Montgomery, Pickens, Pike, Randolph, St. Clair and Wilcox in 1878.

## The Second Medical Practice Act

These essential things having been encompassed, the Association and its individual units were prepared to take a second step in the direction of an enduring structure dedicated to the people they desired to serve. A satisfactory medical practice act was needed, not solely by those who wished to uphold the finest traditions of the profession but by the citizenry, as well, who could not always distinguish the prepared from the unfit. Yet, in its efforts to protect, the Association realized it would have to guard against possible misinterpretations of motive. Self would need to be effaced as far as possible. Indeed, "we ought," said the Board in 1875, "to make it an inflexible rule *never to seek to influence the*

*enactment of laws that are for our exclusive benefit.* Let us ask nothing of the General Assembly which is not quite as much for the advantage of the general public as for the profession of medicine."

This rule of practice found its just reward in the enactment of the State's second Medical Practice Act, February 9, 1877, the culmination of earnest effort on the part of the Association over a number of years. It specified that no person excepting those proposing to practice some irregular system of medicine would be permitted to practice medicine in any of its branches or departments unless a certificate of qualification had been obtained from an authorized Board of Medical Examiners. Even irregulars found it necessary to procure a diploma or certificate of qualification in anatomy, physiology, chemistry, and the mechanism of labor.

Of greater importance, however, was the designation, in the law, of the State Board of Censors and the Boards of Censors of the several County Medical Societies as the authorized Boards of Medical Examiners; and the provision that the standard of qualifications required of persons desiring to practice medicine should be such as would be determined by The Medical Association of the State of Alabama.

Commenting on the adoption of the Constitution of 1873, the creation of the State Board of Health and the passage of the Medical Practice Act, the Board of Censors said, in rendering its report to the Association in annual session, Birmingham, April 10-12, 1877, "we have organized the medical profession of the State in a way that will enable it to exercise the largest and the wisest influence amongst our people and in our legislative councils; . . . we have obtained the recognition of the Association as the accredited agent of the State in the administration of the statutes in relation to public health; and...the Association has been invested by the State with privileges and powers which make it possible, for the first time in the history of American legislation, for the medical profession itself to determine the qualifications of its own members."

How fitting it was then that the motto of the Association, *Nos Etiam Speravimus Meliora*, should have been

suspended, at this meeting, over the chair of the President, Dr. Edward D. McDaniel, of Camden.

It was at this Birmingham meeting, too, that "at 8 P.M.," on the opening day, according to the *Iron Age*, "the hall was filled with the intelligence and beauty of our city. Sweetest music, artistically rendered, contributed greatly to the pleasure of all present. After prayer, Dr. Jordan introduced ...Dr. E. H. Fournier of Mobile, who delivered the annual oration...The compliment paid our young city was duly appreciated." And: "Next morning "at 8 o'clock the South and North Road placed at our service an engine and two elegant passenger coaches, in which the profession rode down to Oxmoor, and spent until 9:30 o'clock in the examining the extensive preparations there made for melting into pig-iron the crude ore....On the return to Birmingham, the power of the waterworks was shown, by its forcing a stream of water higher than the top of the First National Bank building—which is three stories high, with an ornamented roof—no other force being used than the pressure of the water."

In the year that Dr. Peter Bryce was President of the Association, meeting in Eufaula, April 9-11, 1878, County Medical Societies numbered 30. Familiar family names appear among their officers, as, for example: Dr. James J. Winn, President of the Board of Censors in Barbour; Dr. C. H. Franklin, Secretary of the Society in Bullock; Dr. J. C. Kendrick, President of the Board in Butler; Dr. John P. Ralls, President of the Board in Etowah; Dr. E. H. C. Bailey, President of the Marengo Society; Dr. R. D. Webb, Secretary in Sumter; Dr. J. A. Goodwin, President of the Board in Walker; and Dr. J. Paul Jones, Secretary in Wilcox. In the succeeding year the number of Societies had increased to 35—Choctaw (Vivian P. Gaines, President of the Board), Clay, Greene, Macon and Tallapoosa being the accessions. ●

TO BE CONTINUED

1. By an Act of the Legislature, approved September 29, 1919, the Board of Censors of the County Medical Society, rather than the Society as a whole, was constituted the County Board of Health.



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# T E S T E D L A T E L Y A S I M P L Y

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# C O M F O R T A B L E H E A R I N G

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# I N V E S T M E N T O F A F E W M I N U T E S

Hearing losses are among the most consistently neglected health problems. Many people with them won't even admit it to themselves, let alone others. A little encouragement may start them thinking about themselves more realistically.

That's why we're offering you the poster shown here. You can hang it on the wall or stand it on a small table. It comes with booklets called "As precious as sight" that give your patients some basic facts about auditory testing and hearing losses and how easy they are to correct in many cases.

Write to us for your free poster and booklets. They just might help you to help some patients who aren't hearing as well as they used to. Even those who ordinarily wouldn't hear of it.

Professional Relations Division, Beltone Electronics Corporation  
4201 West Victoria Street, Chicago, Illinois 60646, an American company

***Beltone***  
WHEN A HEARING  
AID WILL HELP



L. L. L.



# When choosing a diuretic for day-in-day-out hypertension control with comfortable compliance...

The agent you choose in mild to moderate essential hypertension should offer (1) long-term effectiveness, (2) patient comfort and compliance.

## **Zaroxolyn offers both.**

In one long-term study<sup>1</sup> Zaroxolyn brought moderately elevated (average 161/109 mm Hg) blood pressure down to the range of normotension—and held it there for a year or more.

The investigator noted, "Patient cooperation was surprisingly good for a study of such duration [2½ years]. The once-daily dosage schedule with

metolazone [Zaroxolyn] no doubt contributed to patient compliance."

Overall compliance with Zaroxolyn is good—very good. An analysis of controlled clinical studies involving 188 Zaroxolyn patients showed that only eight discontinued therapy because of side effects. That's a discontinuation rate of only 4.3%, and broader clinical experience appears to substantiate this low rate<sup>2</sup>

Zaroxolyn. For long-term control and comfortable compliance in mild to moderate hypertension.

**Recommended initial dosage in mild to moderate essential hypertension—2½ to 5 mg once daily**

**Zaroxolyn<sup>®</sup>**  
(metolazone, Pennwalt)

2½-mg, 5-mg and 10-mg tablets

**once-daily antihypertensive diuretic**

Before prescribing, see complete prescribing information in the package insert, or in PDR, or available from your Pennwalt representative. The following is a brief summary. **Indications:** Zaroxolyn (metolazone) is an antihypertensive diuretic indicated for the management of mild to moderate essential hypertension as sole therapeutic agent and in the more severe forms of hypertension in conjunction with other antihypertensive agents. Also, edema associated with heart failure and renal disease. **Contraindications:** Anuria, hepatic coma or precoma; allergy or sensitivity to Zaroxolyn. Or, as a routine in otherwise healthy pregnant women. **Warnings:** In theory cross-allergy may occur in patients allergic to sulfonamide-derived drugs, thiazides or quinethazone. Hypokalemia may occur, and is a particular hazard in digitalized patients; dangerous or fatal arrhythmias may occur. Azotemia and hyperuricemia may be noted or precipitated. Considerable potentiation may occur when given concurrently with furosemide. When used concurrently with other antihypertensives, the dosage of the other agents should be reduced. Use with potassium-sparing diuretics may cause potassium retention and hyperkalemia. Administration to women of childbearing

age requires that potential benefits be weighed against possible hazards to the fetus. Zaroxolyn appears in the breast milk. Not for pediatric use. **Precautions:** Perform periodic examination of serum electrolytes, BUN, uric acid, and glucose. Observe patients for signs of fluid or electrolyte imbalance. These determinations are particularly important when there is excessive vomiting or diarrhea, or when parenteral fluids are administered. Patients treated with diuretics or corticosteroids are susceptible to potassium depletion. Caution should be observed when administering to patients with gout or hyperuricemia or those with severely impaired renal function. Hyperglycemia and glycosuria may occur in latent diabetes. Chloride deficit and hypochloremic alkalosis may occur. Orthostatic hypotension may occur. Dilutional hyponatremia may occur in edematous patients in hot weather. **Adverse Reactions:** Constipation, nausea, vomiting, anorexia, diarrhea, bloating, epigastric distress, intrahepatic cholestatic jaundice, hepatitis, syncope, dizziness, drowsiness, vertigo, headache, orthostatic hypotension, excessive volume depletion, hemoconcentration, venous thrombosis, palpitation, chest pain, leukopenia, urticaria, other skin rashes, dryness of mouth,

hypokalemia, hyponatremia, hypochloremia, hypochloremic alkalosis, hyperuricemia, hyperglycemia, glycosuria, raised BUN or creatinine, fatigue, muscle cramps or spasm, weakness, restlessness, chills, and acute gouty attacks. **Usual Initial Once-Daily Dosages:** mild to moderate essential hypertension—2½ to 5 mg; edema of cardiac failure—5 to 10 mg; edema of renal disease—5 to 20 mg. Dosage adjustment may be necessary during the course of therapy. **How Supplied:** Tablets, 2½, 5 and 10 mg.

## **References:**

1. Dornfeld L, Kane R: Metolazone in essential hypertension. The long-term clinical efficacy of a new diuretic. *Curr Ther Res* 18: 527-533, 1975
2. Data on file, Medical Department, Pennwalt Prescription Products

**PENNWALT**

Pennwalt Prescription Products  
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Pennwalt Corporation  
Rochester New York 14603

# DYAZIDE<sup>®</sup>

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## MAKES SENSE FOR LONG-TERM CONTROL OF HYPERTENSION\*

Each capsule contains 50 mg. of Dyrenium<sup>®</sup> (triamterene, SK&F Co.) and 25 mg. of hydrochlorothiazide.



Before prescribing, see complete prescribing information in SK&F Co. literature or PDR. A brief summary follows:

### \* WARNING

This fixed combination drug is not indicated for initial therapy of edema or hypertension. Edema or hypertension requires therapy titrated to the individual patient. If the fixed combination represents the dosage so determined, its use may be more convenient in patient management. The treatment of hypertension and edema is not static, but must be reevaluated as conditions in each patient warrant.

\* **Indications:** When the fixed combination represents the dosage determined by titration: Adjunctive therapy in edema associated with congestive heart failure, hepatic cirrhosis, the nephrotic syndrome. Corticosteroid and estrogen-induced edema, idiopathic edema; hypertension, when the potassium-sparing action of its 'Dyrenium' component is warranted.

**Contraindications:** Further use in progressive renal or hepatic dysfunction; hyperkalemia. Pre-existing elevated serum potassium. Hypersensitivity to either component or other sulfonamide-derived drugs. Routine use of diuretics in otherwise healthy pregnancy.

**Warnings:** Do not use potassium supplements, dietary or otherwise, unless hypokalemia develops or dietary intake of potassium is markedly impaired. If supplementary potassium is needed, potassium tablets should not be used. Hyperkalemia can occur, and has been associated with

cardiac irregularities. It is more likely in severely ill patients with urine volume less than one liter/day, the elderly or diabetics, with suspected or confirmed renal insufficiency. Periodic determinations of serum  $K^+$  should be made. If hyperkalemia develops, substitute a thiazide alone, restrict  $K^+$  intake. The presence of a widened QRS complex or arrhythmia in association with hyperkalemia requires prompt additional therapy. Thiazides are reported to cross the placental barrier and appear in breast milk; fetal or neonatal hyperbilirubinemia, thrombocytopenia, altered carbohydrate metabolism and other adverse reactions that have occurred in the adult may result. When used in pregnancy or in women who might bear children, weigh potential benefits against possible hazards to fetus. Adequate information on use in children is not available.

**Precautions:** Do periodic serum electrolyte determinations (particularly important in patients vomiting excessively or receiving parenteral fluids). Periodic BUN and serum creatinine determinations should be made, especially in the elderly, diabetics, or those with suspected or confirmed renal insufficiency. Watch for signs of impending coma in severe liver disease. If spiro-lactone is used concomitantly, determine serum  $K^+$  frequently; both can cause  $K^+$  retention and elevated serum  $K^+$ . Two deaths have been reported with such concomitant therapy (in one, recommended dosage was exceeded, in the other serum electrolytes were not properly monitored). Observe regularly for possible blood dyscrasias, liver damage, other idiosyncratic reactions. Blood dyscrasias have been reported in patients receiving Dyrenium<sup>®</sup> (triamterene, SK&F Co.), and

leukopenia, thrombocytopenia, agranulocytosis, and aplastic anemia have been reported with thiazides. Do periodic blood studies in cirrhotics to check for nondrug-related variations in blood pictures, and in patients with folic acid depletion, since 'Dyrenium' may contribute to appearance of megaloblastosis. Antihypertensive effect may be enhanced in post-sympathectomy patients. Use cautiously in surgical patients. The following may occur: transient elevated BUN or creatinine or both, hyperglycemia and glycosuria (diabetic insulin requirements may be altered), hyperuricemia and gout, digitalis intoxication (in hypokalemia), decreasing alkali reserve with possible metabolic acidosis. 'Dyazide' interferes with fluorescent measurement of quinidine.

**Adverse Reactions:** Muscle cramps, weakness, dizziness, headache, dry mouth; anaphylaxis, rash, urticaria, photosensitivity, purpura, other dermatological conditions; nausea and vomiting, diarrhea, constipation, other gastrointestinal disturbances. Necrotizing vasculitis, paresthesias, icterus, pancreatitis, xanthopsia and, rarely, allergic pneumonitis have occurred with thiazides alone.

**Supplied:** Bottles of 100 and 1000 capsules; Single Unit Packages of 100 (intended for institutional use only).

**SK&F CO.,** Carolina, P.R. 00630  
Subsidiary of SmithKline Corporation

**TRIAMTERENE CONSERVES POTASSIUM WHILE  
HYDROCHLOROTHIAZIDE LOWERS BLOOD PRESSURE**



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A copy of our report is filed with the Federal Election Commission and is available for purchase from the Federal Election Commission, Washington, D.C.



## THE LATEST TECHNIQUES OF PRACTICE MANAGEMENT

### YOU, THE TELEPHONE MANAGER

Did you ever stop to realize that the receptionist who answers the telephone is your office "personality" to the dozens of patients who call each day? She is.

And, did you know that ninety percent of all new patients phone an office and talk to her before ever being seen by you? They do.

But, your receptionist is not only important from a public relations standpoint; she can greatly affect the efficiency of your practice as well. For example, you could see more patients with fewer interruptions if your receptionist effectively screens calls, takes complete messages and holds them for "call backs."

**But to do this well, without offending patients, your receptionist needs to be trained.** Answering the telephone in your office is not as simple as answering calls at a retail establishment. And, while few physicians delegate even the most minor of clinical tasks to untrained personnel, most physicians routinely assign telephone answering (which has the potential for an even greater impact on the practice) with little or no instruction, or follow-up.

Take emergency calls for example. It's important that your medical assistant-receptionist **know** what your concept of an emergency is; when such a call should be put through to you immediately and what to tell a patient if you're not in the office when the call comes in.

Your receptionist should know how to communicate to patients calling in with a minor problem that you are concerned and will call back. She shouldn't brush patients off with, "Well, he's awfully busy right now and I couldn't interrupt him with such a small problem. I'll try to have him call you." All patients consider their problems to be important, as you well know. Putting off patients hastily usually will mean repeated calls to ask if you're still busy—these calls only increase the already heavy telephone load and tax the patience of your harried receptionist.

Handling emergency calls and "call backs" are only a few of the situations your receptionist should be able to handle. What about the "no-show" patient calling for another appointment? Should your receptionist mention the previously missed appointment and, if so, how should she bring up the topic? How about requests for medical information from insurance representatives and attorneys? Does she know who your real friends are and what business associates to put through immediately? More than her common sense is required to deal with these situations. She must know what **YOUR** common sense dictates and what the medico-legal implications of her decisions are.

The AMA realizes the importance of medical assistant and receptionist training in this area and has developed a course: "YOU, the Telephone Manager," which has been conducted for over 4,000 medical office personnel nationwide, in cooperation with 45 county medical societies. All of these situations and more are discussed in depth. One of the brochures used in the course is available to individual physicians, "Talking With Patients," which outlines some of

the controversial "dos" and "don'ts" for receptionists to follow. (See below for order information.)

There are a few things you can do, too, to "tame the office telephone:"

1. Don't just tell patients, "Call me anytime." Tell them to call, but explain that your office operates on a call-back system unless it is a real emergency and to cooperate by leaving a message.

2. Encourage your patients to communicate their medical problem to your assistant, so she can leave you a complete message and have their charts ready for you to consult when you return their call.

3. Return your calls! And try not to make call-backs at 5 P.M. If the patient does have a serious problem that you feel needs attention, you'll have to attend that problem at an inconvenient time for you, and your patient may have been needlessly suffering all day with a problem they called about at 10 A.M.

You can try a call-back system most consultants recommend: Set aside several 10 or 15 minute call-back periods throughout the day. Your receptionist can dial one patient and have them on the line while you're talking to another. Or, make a few calls after seeing patients in two or three exam rooms to break up the routine. And, your receptionist will be able to tell patients, "You can expect the doctor's call within the hour, will you still be at this number and will you please keep your line free?" The benefits here are obvious: you can eliminate some calls to endlessly ringing numbers with no one home and calls to patients who are phoning friends and relatives about their aches and pains resulting in busy signals ad infinitum.

4. Have an unlisted number in the office — for your use only. You can use this line to make outgoing calls to patients, physicians, the hospital, etc.

5. Be sure your telephone equipment is up-to-date. Patients may not tell you, but your receptionist likely receives repeated complaints of, "I have been trying to get through to you for the last hour..." Most telephone companies will do a free "busy signal" study to determine if your office has enough incoming lines. They'll be able to give you an exact count of how many busy signals come from your office number each day for a week long period of time. This study can take the guesswork out of ordering expensive equipment you don't need. By trying some of these suggestions, you will begin to manage and control the office telephone—which now may be managing and controlling you.

For further information on "YOU, the Telephone Manager" and other AMA training programs for medical office personnel and for physicians write: AMA Department of Practice Management, 535 N. Dearborn Street, Chicago, Illinois 60610.

To order, "Talking With Patients" OP-450; \$.30; send remittance to AMA Order and Handling Department, 533 N. Dearborn Street, Chicago, Illinois 60610.

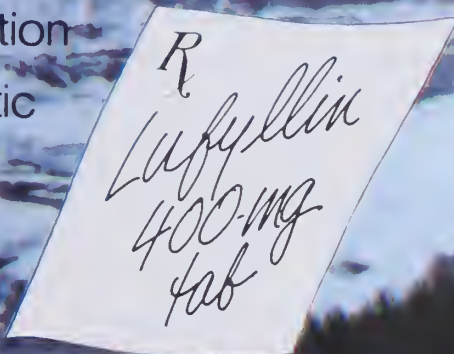


"AIR...A BASIC NEED FOR LIFE SUPPORT"

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A basic need for the bronchospastic patient because...

- A single-entity theophylline derivative
- Therapeutically effective
- High solubility for predictable absorption
- Doses required to achieve therapeutic levels are readily tolerated with little to no gastric distress.



#### LUFYLLIN® (dyphylline) LUFYLLIN-400 (dyphylline) Tablets

##### Following is a Brief Summary:

**Indications:** For relief of acute bronchial asthma and for relief of bronchospasm associated with chronic bronchitis and emphysema.

**Contraindications:** In individuals who have shown hypersensitivity to any of its components.

Dyphylline should not be administered concurrently with other xanthine preparations.

**Precautions:** Use with caution in patients with severe cardiac disease, hypertension, hyperthyroidism, or acute myocardial infarct. Particular caution in dose administration must be exercised in patients with peptic ulcers, since the condition may be exacerbated. Chronic oral administration in high doses (300 to 1,000 mg) is usually associated with gastrointestinal irritation.

Great caution should be used in giving dyphylline to patients in congestive heart failure. Such patients have shown markedly prolonged blood level curves which have persisted for long periods following discontinuation of the drug.

**Adverse Reactions:** Most included in the listing which follows are a few adverse reactions which may have been reported with this drug. Fever, rash, and plasma alkaline phosphatase among the xanthine drugs require that each drug reaction be considered when dyphylline is administered.

The most common side effects are:

1. Gastrointestinal: heartburn, burning, and epigastric pain, generally relieved by antacids, flatulence, diarrhea.

2. Central nervous system stimulation: irritability, restlessness, tremor, hyperreflexia, muscle twitching, clonic and tonic generalized convulsions, agitation.

3. Cardiovascular: palpitation, tachycardia, extrasystoles, flushing, marked hypertension and circulatory failure.

4. Respiratory: tachypnea, respiratory arrest.

5. Renal, albuminuria, increased excretion of renal tubule and red blood cells.

6. Hematologic: hematuria.

**Dosage:** 2 to 4 gm in 24 hr. Adults—usual dose—15 mg/kg every 6 hours up to four times a day. The dosage should be individualized by response to the condition and response of the patient, with therapeutic blood levels considered to be between 10 mg/ml and 20 mg/ml. Levels above 20 mg/ml may produce toxic effects.

##### How Supplied:

LUFYLLIN® Tablets—containing 200 mg dyphylline, NDC black box 200, 500, and 1,000 tablets, NDC white box 250, 500, and 1,000.

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For further information please review package insert or write:

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# Is your hospital vulnerable to IRS audit?

Chances that your hospital's tax return will be audited by the Internal Revenue Service in the next year or two are greater than they've been in a long time.

Over the past five years, beginning in 1970, IRS audits of tax exempt organizations nearly have tripled, from 8,600 to 22,200. Although these available figures do not indicate specific types of tax exempt organizations subject to audit, our experience detects an unmistakable trend between this dramatic increase and the incidence of IRS examinations of hospitals.

Whether the trend has been spurred by legislative reform or internal administrative interest is academic. Only one practical and critically important question remains: Would your hospital be vulnerable in event of IRS audit?

To answer that question, it is helpful first to review the type of information commonly requested by Revenue agents during the course of an examination. Viewed broadly, their primary areas of concentration can be described as follows:

—**Administrative review**, to establish that activities of a hospital comply with those contained in the tax exemption letter issued by the IRS.

—**Income review**, to determine that hospital receipts are directly related to the exempt purpose of the organization.

—**Expense review**, to establish that expenses are incurred for the direct benefit of the hospital with only indirect inurement to private parties.

—**Pension plan review**, and/or review of the tax shelter annuity program.

—**Payroll tax withholding review**.

## I. ADMINISTRATIVE REVIEW

The law contains an extensive listing of organizations whose activities have been determined by Congress to be of such social import that they warrant immunity from Federal income tax. Because hospital activities include a wide variety of essential social services, tax exemption conceivably could be granted on an independent basis for the separate functions involving patient care, medical research and professional education.

Review of several exemption letters, however, reveals that these various activities commonly are consolidated by IRS and viewed as a single function constituting humanitarian or charitable endeavors. As such, hospitals are granted tax exemption under the provisions of the Internal Revenue Code Section 501 (c) (3), which—as one of its more significant benefits—permits a donor a tax deduction for contributions made to the organization.

IRS Code Regulations pertaining to this provision stipulate that two specific tests—the "Organizational Test" and the "Operational Test"—must be satisfied to gain and maintain tax exemption. Briefly, these two tests can be described as follows:

**Organizational Test:** An organization is "organized exclusively" for one or more exempt purposes only if its articles of organization a) limit the purpose of such organization to one or more purposes; and b) do not expressly empower the organization to engage otherwise than as an insubstantial part of its activities, activities which in themselves are not in furtherance of one or more exempt purposes.

**Operational Test:** An organization will be regarded as "operated exclusively" for one or more exempt purpose only if it engages primarily in activities which accomplish one or more of such exempt purpose specified in Section 501 (c) (3). An organization will not be so regarded if more than an insubstantial part of its activities is not in furtherance of an exempt purpose.

To ascertain whether the hospital's activities are clearly established and in conformance with these two tests, an IRS Agent normally will request copies of the hospital's Articles of Organization, By-Laws, minute books of trustee meetings and auditors' annual reports. Prevention of any unnecessary exposure in this area can be best accomplished by careful review of these documents and any other official record, making certain that they comply with the Internal Revenue Code provisions.

## II. INCOME REVIEW

In the area of hospital revenues, principal exposure most frequently involves those activities offered as a convenience to both patients and staff which do not relate directly to the exempt purpose of the organization. Examples: thrift and gift shops, cafeterias and coffee shops, parking lots and pharmacy operations. If any of these activities are profitable, the hospital will be deemed as involved in a trade or business producing "unrelated business income." This fact is significant, because organizations so deemed are subject to tax on income from these "unrelated" sources at the statutory rate applicable to corporations.

To mitigate against the impact of unrelated income, it is important to remember one highly significant—yet often overlooked—factor: allocation of expenses to these sources of income. When determining the amount of unrelated business income, be certain to make a comprehensive allocation of hospital administrative expenses involved with those activities.

The law, in addition, permits combining of all unrelated business activities. Proper application, therefore, will permit the utilization of loss incurred in one class of unprofitable activity against the income generated by profitable operations.

Application of both of these techniques should have the effect of significantly reducing the tax imposed upon your hospital.

## III. EXPENSE REVIEW

This major area of audit concentration involves the concept of private inurement. Under its broad classifica-

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\*Manager, Alexander Grant & Co., Presidential Plaza, Chicago, Illinois 60601.



AREA OF VULNERABILITY	CORRECTIVE MEASURE
I. ADMINISTRATIVE REVIEW Conformance with Organizational and Operational tests	Careful review of Articles of Organization, By-Laws, trustee meeting minutes and auditor's annual reports to assure compliance with these provisions.
II. INCOME REVIEW Unrelated business income	Allocate expenses to these sources of income
III. EXPENSE REVIEW Private inurement to third parties	Provide for an arm length's fee for services and facilities rendered
IV. PENSION PLAN REVIEW Revisions from enactment of ERISA	Careful review of hospital's deferred compensation plans to assure compliance with revised law.
V. PAYROLL TAX WITHHOLDING REVIEW Special side agreements with medical specialists; handing of grants; payment of private duty nurses	Careful review of relationship with independent members of staff to determine if employer-employee relationship exists.

As even these cursory observations suggest, hospital exposure to IRS audit has increased significantly in recent years. The armamentaria of legal precedent and constrictive new provisions assembled by the Service should be regarded as formidable, requiring thorough review of hospital activities to assure compliance.

tion, the examining agent will review the hospital's expenditures to determine whether third parties receive primary benefit as the result of certain hospital expenditures. Examples where private inurement could exist: leasing of office space to doctors; furnishing of nursing and secretarial services to doctors; maintenance of a house officer's loan fund; and making available hospital facilities to doctors for private patient care on a no fee basis. In cases where these situation do exist, revisions should be effected which provide for an arm's length fee to be charged for the services and facilities which are made available.

#### IV. PENSION PLAN REVIEW

Based on the sweeping revisions which resulted from enactment of the Employee Retirement Income Security Act of 1974, the hospital's deferred compensation plans should be carefully reviewed to assure compliance with this law. Although detailed discussion of its complex provisions is beyond the scope of this article, our experience leads us to conclude that extensive plan revisions are required in order to assure compliance with this new piece of legislation.

#### V. PAYROLL TAX WITHHOLDING REVIEW

Exposure in connection with withholding requirements most frequently involves special side agreements entered

into with specialists such as anesthesiologists, pathologists and radiologists; the handing of training and research grants; and the payment of private duty nurses.

In many instances, the Internal Revenue Service has successfully advanced the position that certain specialized groups of physicians and private duty nurses are, in fact, employees of the hospital (as opposed to independent contractors) and therefore impose employment tax withholding requirements upon the hospital. If IRS determines that an employee relationship exists and the hospital has not withheld the appropriate taxes from the individual's wages, it can assess significant penalties for underpayment of withholding taxes.

Making available training grants and research support grants to members of the hospital staff involves still another area of exposure. The service in recent years has adopted a tougher posture with respect to these payments and in many cases has successfully argued that these payments constitute compensation for services rendered. As such, the hospital is required to include grant awards in the individual's annual statement of wages and withhold the appropriate payroll taxes.

To avoid the imposition of onerous underpayment penalties, we strongly recommend that the hospital's relationship with the various independent members of its staff be reviewed to determine whether, in fact, an employer-employee relationship exists.

The most common areas of vulnerability to tax audit and the basic measure your hospital should consider to avoid them are graphically summarized in the above table. ●

# 1977 Payroll Taxes Increased

## Social Security Taxes

Commencing January 1, 1977 employers are required to withhold more from the earnings of certain employees for Social Security taxes. The Government has announced an increase in the taxable wage base to \$16,500 for 1977, up from \$15,300 for 1976. This represents an increase of \$1,200.

The tax rate of 5.85% which has been in effect since 1973 will remain unchanged in 1977.

Under the law, a person earning \$16,500 or more will pay \$965.25 in Social Security taxes during 1977. This is an increase of \$70.20 above the 1976 maximum tax of \$895.05 on earnings of \$15,300.

The increase will not be reflected in the amount withheld from employee's pay checks but will lengthen the period of withholding for persons earning more than \$15,300 during 1977 until they reach \$16,500 in earnings.

## Employers Taxes Also Increased

Employers will also be required to pay the same amount as employees pay into Social Security accounts so the employee will have the benefit of both Old Age and Hospital Insurance in the later years.

Adding the 5.85% employee tax to the matching 5.85% employer tax means that 11.7% of the taxable payroll will be designated this year to pay for Social Security and Medicare. This can add up to as much as \$1,930.50 per employee.

## Increased Costs Result In Higher Taxable Base

The taxable earnings base continues to climb because of increased benefits provided for Social Security recipients. The change is required in any year in which the benefits for Social Security recipients automatically have been increased due to the cost of living. During 1976, Social Security recipients received a 6.4% benefit increase to aid in offsetting the rising cost of inflation.

## Earnings Allowance Increased

The earnings of a Social Security retiree has been increased to \$3,000 for 1977. This is the amount a retiree may earn without decreasing his or her benefit. The earnings limit for 1976 was \$2,760.

Retirees earning more than \$3,000 during 1977 will lose one dollar of Social Security payments will be made during any month in which earnings did not exceed \$250. It is estimated that approximately 1.3 million Social Security retirees will benefit from the increase in the earnings allowance.

## Direct Deposit Available

During 1976, the Social Security Administration commenced a program whereby retirees benefit checks could be sent directly to the recipient's bank for deposit. This program has generated much interest since it results in an added convenience for the recipient of not having to deposit his or her check and also provides an additional measure of security.

Social Security beneficiaries who are interested in obtaining additional information pertaining to the direct deposit

of their checks should contact their bank. Participating banks will provide the necessary form to be completed by the Social Security recipient to arrange for direct deposit of his or her checks.

## Unemployment Compensation Federal Tax Increase

Effective January 1, 1977, the Federal Unemployment Compensation Tax will increase from .5 to 1% to .7 of 1% on the first \$4200.00 of earnings in the taxable year. This means an increase of .2%.

The Alabama State Tax has a \$4800.00 base and the rate will be determined by experience. It must be remembered that employees are required to pay .5 of 1% of the first \$4800.00 until the fund has been restored.

## A Final Thought

The cost of Social Security is shared equally by employers and employees. Any increase in the tax base affects both the employer and the employee.

Monthly Social Security payments may be made to individuals and their dependents when the employee retires, becomes disabled, or dies. The Social Security program also aids in the payment of health care (Medicare) for eligible retirees who are 65 years of age or over or disabled. ●

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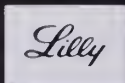


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# The Guillain-Barre' Syndrome

James H. Halsey, Jr., M.D.\*

## Abstract

*Classically the Guillain-Barre' (or Landry-Guillain-Barre'-Strohl) syndrome is characterized by three features: (1) motor paralysis, (2) areflexia (3) respiratory failure. Typically the onset follows an upper respiratory infection or "cold" (about 50% of the cases, suggesting an immune reaction and raising the question of a similar mechanism following swine flu inoculations) or some other incident (e.g., surgical procedures in about 10% of the cases) about 2 to 3 weeks prior to the onset of symptoms. There then occurs an acute ascending motor paralysis usually with retention of sphincter functions and variable sensory loss. Typically muscular weakness begins in the feet and legs, more or less symmetrically, and progresses in a symmetrical fashion over a period of days in an ascending fashion to involve upper legs, arms, respiratory, and cranial muscles. Tingling paresthesias may occur, and there is sometimes loss of position and vibration sense; but sensory loss is not a prominent feature of the typical syndrome. Treatment consists of supportive measures, particularly respiratory support, during a recovery of weeks to months, which is usually complete in the 90% who survive. Glucocorticoids have been used with variable results.*

## Definition and Clinical features

This is an acute, relatively symmetrical polyneuritis. Its characteristic features are the rapid development of quadriplegia and very high frequency of associated respiratory failure and paralysis of swallowing and facial movement. The hallmark of peripheral neuropathy, absences of tendon reflexes, is practically always present. Preservation of any of the tendon reflexes raises considerable doubt about the diagnosis. Peripheral sensory loss is common but not always recognized in the presence of quadriplegia in a patient who cannot talk because of endotracheal intubation for management of associated respiratory failure.

## Clinical course

The average time period from onset to respiratory failure is only a few days. The duration of paralysis is highly variable, with three weeks being an average duration of the need for respiratory support. The subsequent course is of progressive recovery to normal within about four months but this too is highly variable. Paralysis is permanent in 5-10%. Death occurs most commonly as a consequence of inadequate respiratory management in the acute phase, or as a complication of permanent paralysis.

## Etiology, Pathogenesis, and Pathology

The characteristic pathology is demyelination of peripheral nerves, most severely affecting the nerve roots within the subarachnoid space. If the process is severe the axis cylinders will also degenerate. Two rare specific causes are known: acute intermittent porphyria, and diphtheria. Apart from these, more than 95% of the cases are of unknown cause. In about half of these there is a history within the preceding two weeks of a viral upper respiratory illness, often not severe. This point is of added interest currently because of the concern (undocumented at the time of this writing) about cases following Swine influenza vaccination. The current hypothesis is that the viral infection induces an auto-immune disorder which attacks peripheral nerve myelin. There is a predilection for proximal portions of the nerves, commonly involving the nerve root within the subarachnoid space, then reflected in elevated spinal fluid protein.

## Diagnosis and Differential Diagnosis

The Guillain-Barre' Syndrome is currently the most common cause of acute areflexic quadriplegia with respiratory failure. Botulism may mimic it, but has a higher incidence of upper cranial nerve paralysis, almost always including pupillary paralysis while the pupils are almost always normal in the Guillain-Barre' Syndrome. Sensory loss is absent in botulism and usually present in Guillain-Barre' Syndrome, while ileus and urinary retention are common in botulism and uncommon in Guillain-Barre'.

Acute lesions of the spinal cord and brain stem have preserved and usually hyperactive tendon reflexes. We have seen extensor plantar responses transiently in a few cases of Guillain-Barre' Syndrome, presumably reflecting the inflammatory reaction surrounding the spinal cord. This sign would be relatively persistent in spinal cord and brain stem lesions. In past years, acute paralytic poliomyelitis could produce a similar clinical picture, though without sensory loss, distinguishable only by a spinal fluid cellular reaction usually comprising several hundred lymphocytes per cubic millimeter. The spinal fluid is acellular in the Guillain-Barre' Syndrome. Both disorders have normal sugar and elevated protein.

The spinal fluid protein elevation though common in Guillain-Barre' Syndrome is not specific, simply reflecting involvement of the nerve roots in the subarachnoid space. If the process is more peripheral, the spinal fluid protein may be normal but the clinical course and prognosis are unaffected. Spinal fluid is always acellular in Guillain-Barre' Syndrome. The other common polyneuropathies due to lead, arsenic, diabetes, and alcoholism are usually slower in their onset, have prominent sensory symptoms, usually mainly distal muscular weakness, and almost never cause respiratory paralysis.

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## Treatment

The essential treatment is supportive, primarily of the respiratory insufficiency. The survival rate depends almost entirely upon the quality of this. It is vital to appreciate the rapidity with which respiratory paralysis may evolve. We have seen this occur within a few hours in some cases. The survival rate depends almost entirely upon the quality of the respiratory supportive management.

For a long time there has been controversy about the place of steroid therapy. We have seen spectacular results in a subacute and chronic relapsing variety of idiopathic polyneuritis and recognize a large steroid-responsive subgroup as a specific entity. However, we have rarely been convinced that we have averted respiratory failure in the acute variety.

There are two recent reports which appear to show a small, unspectacular, but definitely favorable effect in acute Guillain-Barre' Syndrome. When or whether to use steroid therapy depends on the clinician's judgment of the balance between the potential for steroid therapy to aggravate the life threatening complications of the acute phase intensive care management against the somewhat greater prospect of ultimately permanent paralysis. There is no place for steroid therapy once the paralysis has become maximal or is beginning to improve.

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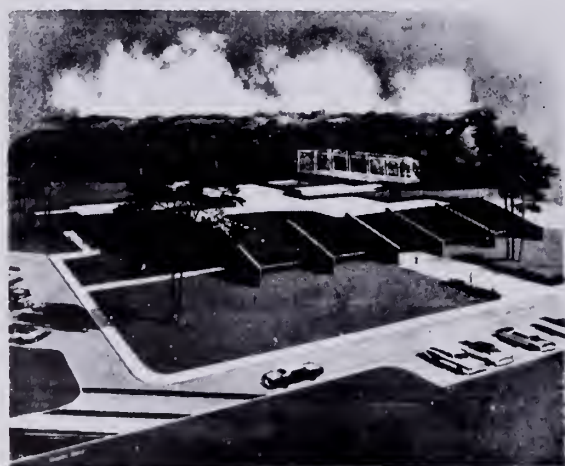
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# Herpes Zoster And Herpes Simplex Management With Influenza Virus Vaccine

Andrew M. Brown, M.D.\*

## Synopsis Abstract

The pain and discomfort of herpes zoster, or shingles, has been effectively managed in 103 of 118 (87.3%) cases by an office procedure in a private practice setting, using commercially available influenza vaccine. The results were dramatic in that the patient entering the office in pain left without pain. Continued symptomatic relief required a short course of therapy. Early treatment definitely showed an improved response. Built-in controls were employed. A preliminary report of 17 cases of herpes simplex, of which 15 have been successfully managed by the same method, is also mentioned in this paper.

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The term *herpes zoster* comes from two Greek words: *herpes* means creeping and *zoster* means girdle. Shingles is really a distortion of the medieval Latin *cingulus* which is also a word for girdle. This disease has been known since ancient times. The virus that causes varicella and zoster is thought to be one and the same. This is based on electromicroscopy and immunofluorescence techniques and virus antigen studies. The antigen response to zoster and varicella appear to be identical; however, there are certain different types of antigens which are produced in each. Both produce a precipitating complement fixing, fluorescent, and neutralizing antigen. Herpes zoster tends to be most severe in persons with depressed cell mediated immune responses due to natural causes, such as Hodgkin's disease, and in patients on immunosuppressive drugs.

Several modes of therapy have been advocated and are effective. Idoxuridine, cytarabine and, to a lesser degree, adenosine have been used. Idoxuridine has on the package

Table 1

### MALE-FEMALE PERCENTAGES

#### 1-14 Days (32 Male - 59 Female)

AGE	EXCELLENT			GOOD			POOR			UNSATISFACTORY		
	M	F	Total	M	F	Total	M	F	Total	M	F	Total
0-12	1(3.1%)	5(8.5%)	6(6.6%)									
13-25	2(6.2%)	3(5.1%)	5(5.5%)				1(3.1%)		1(1.1%)			
26-40	3(9.4%)	3(5.1%)	6(6.6%)		2(3.4%)	2(2.2%)						
41-65	12(37.5%)	14(23.7%)	26(28.8%)	2(6.2%)	9(15.3%)	11(12.1%)		1(1.7%)	1(1.1%)			
66+	7(21.9%)	10(16.9%)	17(18.7%)	3(9.4%)	8(13.6%)	11(12.1%)	1(3.1%)	3(5.1%)	4(4.4%)	1(1.7%)	1(1.1%)	

#### 15 Days or Longer (7 Male-20 Female)

AGE	EXCELLENT			GOOD			POOR			UNSATISFACTORY		
	M	F	Total	M	F	Total	M	F	Total	M	F	Total
0-12												
13-25												
26-40												
41-65	1(14.3%)	3(15%)	4(14.8%)	1(14.3%)	2(10%)	3(11.1%)					1(5%)	1(3.6%)
66+		4(20%)	4(14.8%)	2(28.6%)	6(30%)	8(30%)	2(28.6%)	2(10%)	4(14.8%)	1(14.3%)	2(10%)	3(11.1%)

Total number of patients ..... 118  
 Excellent results 57.6%  
 Good results 29.7%  
 Poor results 8.5%  
 Unsatisfactory results 4.2%

insert the statement that it "is only indicated in the treatment of herpes zoster keratitis." It has, however, been applied topically on segmental lesions with good results. Nevertheless, the amount required to saturate lint compresses tends to be very expensive. Cytarabine is limited to "only physicians experienced in cancer chemotherapy." The insert further states that "for induction therapy, patients should be hospitalized in a facility with laboratory and supportive resources sufficient to monitor drug tolerance and protect and maintain a patient compromised by drug toxicity."

Herpes zoster is supposedly similar to herpes simplex. Herpes simplex has been treated by Lee<sup>1</sup> and others, using the flu vaccine therapy regimen developed by him and delineated by Miller<sup>2</sup> for the treatment of the influenza virus. However, no use of the flu vaccine for the treatment of herpes zoster was known.

On August 17, 1973, a 63-year old gentleman presented in the office with a painful rash over his right forehead which had caused headaches and made his head tight and drawn for the past six days. The vesicular lesions had the obvious distribution of the right supraorbital nerve and appeared typical of herpes zoster. He stated, "I am just about at the end of my rope." It was explained to this

patient that herpes simplex, which was thought to be related to herpes zoster, had been treated with ordinary influenza virus vaccine and, if he was desirous to try this approach, he could be treated in such a manner. About one hour after flu vaccine therapy had been initiated, the erythema had dissipated and the excruciating pain was alleviated. The patient showed visible signs of marked improvement. This was the first case. Fortunately, the next four cases were likewise successful and a preliminary report was presented.<sup>3</sup>

Since that first case, over 118 cases have been accumulated. Informed consent was obtained from all subjects after the motive of the procedure had been fully explained. This report is on the first 118 cases. Ages ranged from 23 months to 91 years. The average age was 58.3 years. There were 79 females and 39 males. (Table 1) None of the 27 patients having herpes zoster over two weeks were under 41 years of age. The dermatome distribution was rather uniform (Table 2)

### Method

The method presented here is relatively simple. It has been used in over 118 cases. It employs the use of the influenza vaccine. In these cases, Influenza Vaccine-Bivalent, Type A and B, which had been filtered and zonal centrifuged was used. (It perhaps makes little difference which laboratory supplies the vaccine, as long as U.S. Government standards are met. The Port Chalmers strain was used; however, it is doubtful that this is too important.) Dilutions were made on a 1:5 basis, using one part of the flu vaccine to four parts of buffered saline.

For example (Figure 1): The No. 1 dilution used 1 cc. of the flu vaccine and 4 cc. of the buffered saline. The No. 2 solution contained 1 cc. of the No. 1 solution and 4 cc. of the buffered saline, which produced a 1:25 dilution. Likewise, No. 3 took 1 cc. of the No. 2 dilution and 4 cc. of the buffered saline, producing a 1:125 dilution. Then serial dilutions were run out as far as was necessary. The amount used was .05 cc. for each injection. A time interval of 20 minutes was allowed to observe symptoms after each injection. The wheal was given intradermally or subcutaneously and was not measured. Actually, the size of the

Table 2

Cranial	Thoracic	Lumbar
V <sub>1</sub> ..... 19	1 ..... 4	1 ..... 6
V <sub>2</sub> ..... 6	2 ..... 1	2 ..... 1
V <sub>3</sub> ..... 1	3 ..... 4	3 ..... 3
	4 ..... 3	4 ..... 2
	5 ..... 8	5 ..... 0
Cervical	6 ..... 17	
1 ..... 0	7 ..... 4	Sacral
2 ..... 1	8 ..... 5	1 ..... 0
3 ..... 0	9 ..... 4	2 ..... 8
4 ..... 0	10 ..... 6	3 ..... 0
5 ..... 2	11 ..... 4	4 ..... 0
6 ..... 2	12 ..... 3	5 ..... 0
7 ..... 1		
8 ..... 3		

Figure 1

SOLUTION	VACCINE	DILUTION FLUID	DILUTION	AMOUNT VACCINE GIVEN EACH .05 cc.
#1	1 cc. Stock	+4 cc. Buffered Saline	1:5	0.01
#2	1 cc. #1	+4 cc. Buffered Saline	1:25	.002
#3	1 cc. #2	+4 cc. Buffered Saline	1:125	.0004
#4	1 cc. #3	+4 cc. Buffered Saline	1:625	.00008
#5	1 cc. #4	+4 cc. Buffered Saline	1:3125	.000016
#6	1 cc. #5	+4 cc. Buffered Saline	1:15625	.0000032
Etc.				



Table 3

## HERPES ZOSTER

## RESULTS

	<u>Satisfactory</u>	<u>Excellent</u>	<u>Good</u>	<u>Poor</u>	<u>Unsatisfactory</u>
1-14 days (91 cases)	84 (92.3%)	60 (65.9%)	24 (26.4%)	6 (7%)	1 (1%)
15+ days (27 cases)	19 (70.4%)	8 (29.6%)	11 (40.7%)	4 (14.8%)	4 (14.8%)
All Cases (118 cases)	103 (87.3%)	68 (57.6%)	35 (29.7%)	10 (8.5)	5 (4.2%)

wheel was not significant, and no attention to growth was given.

The primary concern was with symptoms. The patient was asked to record symptoms as they developed during the course of testing. Symptoms which were present or developed included: fatigue, burning of the eyes, dryness of the throat, pain or burning or tingling of the skin at the site of the lesion, drowsiness, headaches, redness of the rash, shortness of breath, or some difficulty with balance. The most important changes were the relief of pain and burning. As testing was continued, most or all of these associated symptoms disappeared.

Therapy was usually initiated with the No. 1 solution and continued by going progressively weaker (No. 2, then No. 3, then No. 4, etc.). When the best therapeutic level, based on remission of symptoms, had been achieved, an additional test employing a different dilution was given to see if symptoms would return. Symptoms did return, and the optimum level was again given. This produced a remission of symptoms and it also served as a built-in control.

When the proper level was derived, the solution was then made up in a bottle which contained 5 cc. or multiples of 5 cc. Since the treatment dose was .05 cc, 10 times that would be .5 cc. To 0.5 cc. of whatever happened to be the therapeutic level was added 4.5 cc. of the buffered saline. This allowed a greater degree of accuracy since each .5 cc. injection would more uniformly contain .05 cc. of the therapeutic dose.

The therapy population was divided into two groups: The first group contained those with typical herpes zoster lesions present from one day to two weeks; the second group contained those with lesions present, or a history of lesions and/or residual symptoms, from 15 or more days. The definitions of the terms "excellent", "good", "poor", and "unsatisfactory (or failure)", are as follows: "Excellent" results were defined as complete remission with **no residual complaints**; i.e., the patient cleared up almost completely in a period of less than five days without any residual sequelae. The "good" results showed a marked improvement, but patients did have some minor sequelae such as return of mild pain, itching, and slight burning, which required continued therapy for a period **greater than five days but less than 15 days** for complete remission. In the "poor" results, the patient did experience some improvement; however, the degree of improvement was not considered total, and there was residual symptoms, such as mild tingling or some drawing sensation present. This, in

many cases, really represented the scar formation and adhesions following the initial healing. In the "unsatisfactory" result cases, the patients did not believe that they were significantly benefited.

## Results

Where the lesions were present from **one day to two weeks** (91 cases), 60 patients (66%) received excellent results; 24 (26.4%) received a good rating; 6 (7%) were rated poor; and 1 (1%) was rated unsatisfactory (Table 3). Since the excellent results and the good results constituted a satisfactory therapeutic management for this disease, the combined effectiveness of this method of therapy was 92.3% when treated within the first two weeks of the appearance of symptoms. Where the lesion had been present for over two weeks, 8 (29.6%) had excellent results; 11 (40.7%) had good results; 4 (14.8%) received a poor rating; and 4 (14.8%) rated unsatisfactory. Two cases with unsatisfactory results were actually three years plus in duration. The overall success rate for this method of therapy would be 92.3% when treated during the first two weeks and 70.4% when treated after the second week, and 87.3% for all cases. If the two cases over three years were deleted, the overall success rate increases to 88.8%. If only the unsatisfactory results were excluded, since even the poor results had some measure of success, then the failure rate with this method of therapy shifts down to 4.2% and, if the two cases over three years are excluded, it is even a lower 2.5%.

The symptomatic relief required a short course of therapy in most cases. On several occasions symptoms returned when patients discontinued their therapy. Some had to be re-titrated on two or more occasions to get additional benefit. Early therapy definitely showed an improved response. **Therapy, however, did little to control the signs of the disease.** Vesicles which had not yet begun to develop continued to erupt but were not painful. Relief was never achieved before the second dilution (1:25). Symptoms were relieved by the neutralizing dose, allowed to return as the non-neutralizing dose was given, and again neutralized by the proper dose. The patients were unaware which dose was being given. Since this was done in a private practice dependent upon referrals from other physicians, no placebo, or double blind therapy was given. The placebo was, however, in reality the administration of the wrong (non-therapeutic) level which did not relieve the symptoms. The patient was then given the neutralizing dose which did relieve the symptoms. In view of the effectiveness of the

## HERPES SIMPLEX

## RESULTS

<u>Number of Cases</u>	<u>Satisfactory</u>	<u>Excellent</u>	<u>Good</u>	<u>Poor</u>	<u>Unsatisfactory</u>
17	15 (88%)	8 (47%)	7 (41%)	1 (6%)	1 (6%)

procedure, the severe pain without the therapy, and the built-in controls, withholding of this therapeutic modality was not considered humane.

After the neutralizing dose had been derived, the patient was given enough vaccine for b.i.d. injections of the neutralizing dose for five days and was seen on the fifth day. If he or she was not doing well at that time, the level was rechecked and the patient placed on the new level for an additional five days. At the end of that time, he or she was usually placed on an additional 10 days of b.i.d. therapy. Some patients adjusted their dosage to a p.r.n. demand regimen of t.i.d. and q.i.d. with improved benefits.

### Discussion

Just what is taking place here is something that I cannot answer. In today's world we try to answer everything with some plausible explanation. I do not know what is involved any more than Jenner knew what was involved when he used cow pox to prevent small pox. Furthermore, it does not seem plausible that such a small amount of vaccine would be useful, but it seemingly is. Actually, we are using much less than would be used in one flu therapy prophylaxis injection. The strongest dose administered is really equivalent to .01 cc. of the flu vaccine. We do know that, when allergies are being treated, the amount administered is often disproportionate to the severity of the symptoms. For instance, a person who is markedly allergic to ragweed usually reacts to a smaller amount (i.e., a weaker concentration, as 1:10,000,000), as opposed to that of a person who is less allergic to ragweed who might show a reaction at 1:1,000 ratio. It has been postulated that perhaps some transfer mechanism is involved. Perhaps some cell-mediated immune response is initiated which results in bringing into action other protective mechanisms. Certainly, there are those who will ferret this out and explain the mechanism in due time, and I will be grateful for their explanation. It has been estimated that at least 20% of adults suffer from herpes zoster at some time in their life.<sup>4</sup> Considering the frequency of zoster and the dearth of reports of successful attempts to manage the disease, this particular mode of therapy bears full consideration.

There is really no other economical, effective therapeutic regimen for this particular problem. While we are waiting for the "magic bullet" to arrive on the scene, here is a mode which could benefit many people in intense, almost intractable pain. It was the knowledge of the efficacy of influenza vaccine in the treatment of herpes simplex that led to the decision to try influenza vaccine for herpes zoster. Since initiating the herpes zoster study, several cases

of herpes simplex have also been treated in this office (Table 4).

At the present time, influenza vaccine for herpes simplex appears to be about as effective as influenza vaccine for herpes zoster, however, the sampling is much smaller. It is being shown effective in 15 of 17 (88%) of the cases of either oral or genital herpes simplex which have thus far been treated in this office. By the same criteria, influenza virus vaccine management has been effective in 87.3% of the 118 cases of herpes zoster which have been managed in this office. It should be emphasized that delay in therapy reduces the 92.3% success rate during the first two weeks to 70.4% after the first two weeks.

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### PROGRESS MADE IN UAB MEDICAL CENTER EXPANSION

An important milestone in The University of Alabama in Birmingham's (UAB's) progress toward completion of its \$64.5 million expansion of the University of Alabama Hospitals and Medical Center occurred in January, 1977, when the first completed building opened.

Completion of the Tumor Institute and Radiation Therapy Building, first phase of the Lurleen B. Wallace Memorial Hospital and Tumor Institute, was followed by the completion of the Quarterback Tower of the Alabama Heart Hospital—scheduled for a Spring, 1977 opening.

These facilities are just the beginning of the expansion effort now underway that will include the following: The Spain Heart Bed Tower, The Wallace Cancer Bed Tower, The Diabetes Research and Education Building expansion, The Thomas D. and Julia W. Russell Ambulatory Center, The Medical Education Facility, and the East Base. ●



# Endoscopic Disruption Of Gastric Bezoars

William A. Webb, M.D., F.A.C.S.\*

Linda McDaniel, R.N.,\*\* and

Brenda Browning, R.N.\*\*

The increasing popularity and availability of the fiberoptic endoscope is leading to improved diagnostic and therapeutic management of medical problems. One example of such improved treatment, enzymatic dissolution of gastric bezoars through the gastroscope, is not a widely appreciated procedure. Four cases recently successfully treated are reported to illustrate this method of management.

## CASE REPORTS

**Case I:** A 63-year-old female was evaluated for nausea, vomiting, and epigastric pain. Ten years previously, a pyloroplasty and vagotomy had been done for peptic ulcer disease. The current upper G.I. series was read as "persistent antral deformity." At gastroscopy, she exhibited a large 8-10 centimeter green, gelatinous mass composed of vegetable fibers and located in the antrum and body of the stomach. A solution of commercial meat tenderizer (Adolph's), using one to two teaspoons per 60 cc of warm water as advocated by Davis<sup>1</sup>, was prepared.

After the solution had been manually agitated in the syringe, it was instilled via a polyethylene irrigating catheter through the operating channel of the forward viewing endoscope. The solution was injected primarily in the area between the bezoar and the gastric wall. Initially, some of the disrupted bezoar was removed by aspiration, then more solution instilled. The patient was then placed on her right side and kept NPO overnight. The following day repeat endoscopy revealed no bezoar present, but a markedly narrowed pylorus, secondary to recurrent ulcer disease, could be seen at this time.

**Case II:** A 67-year-old male was evaluated for nausea, vomiting, epigastric pain, and weight loss. Eight years previously, a vagotomy, hemigastrectomy, and Bilroth II procedure had been done for ulcer disease. His upper G.I. series was interpreted as a "narrowed anastomosis with a questionable gastric neoplasm." At gastroscopy, a large, green, gelatinous bezoar, occupying two-thirds of his gastric pouch, was seen. The stoma was not visible. The enzymatic solution was administered; and the following day, despite the fact that his anastomosis was only about 5 mm in diameter, due to recurrent ulcer disease, no bezoar was present. The patient has done well since gastric revision.

**Case III:** A 53-year-old female was evaluated because of nausea, vomiting, and epigastric pain. Twelve years previously, a subtotal gastrectomy and Bilroth II anastomosis had been performed for ulcer disease. Her upper G.I. series was read as normal except for retained food particles in the gastric remnant. At endoscopy, a large

bezoar, 10-12 centimeters in diameter, was seen, and enzymatic disruption was carried out. Four days later she was gastroscoped again, at which time no pathology was seen.

**Case IV:** This 39-year-old female had been evaluated previously for nausea, vomiting, and epigastric pain. At that time, she was converted from a Bilroth II to a Bilroth I anastomosis because of an afferent loop syndrome. She subsequently gained from a weight of 83 pounds to 126 pounds in six months. She was evaluated again seven months after surgery, complaining of nausea, vomiting, and epigastric pain. Upper G.I. series revealed a distended gastric pouch containing granular material. At gastroscopy, a large bezoar, occupying the entire gastric pouch, was found. Enzymatic disruption was carried out, and the following day repeat gastroscopy revealed a widely patent anastomosis with no associated pathology. In retrospect, it was noted that the patient gave a history of ingesting ten to twelve oranges a day since her gastric revision. This case is especially interesting since the time limits during which the bezoar formed are known.

## DISCUSSION

All of the above patients had previously undergone some type of surgical procedure for ulcer disease. In one series of post-gastrectomy patients, 14% developed phytobezoars (plant).<sup>2</sup> The classical diospyrobezoar (persimmon) and trichobezoar (hair), however, are not related to gastric surgery and altered physiology. It has been reported that 80% of phytobezoars are related to the pulp of oranges.<sup>3</sup> The Bilroth I anastomosis and vagotomy, followed by pyloroplasty and vagotomy, resulted in the highest bezoar formation, according to one series.<sup>2</sup>

The altered anatomy and physiology of the gastric remnant apparently lead to the formation of the bezoar because of decreased motility and acidity, as well as a diminished ability to digest and mechanically reduce food. When vegetable matter is retained in the stomach, a low grade gastritis ensues with the outpouring of thick, tenacious mucus which further binds the cellulose fibers.<sup>4</sup>

Treatment in the past has primarily depended on the use of low fiber diets and good mastication of food. (It is known that edentulous patients have an increased number of bezoars.)<sup>4</sup> In recent years the oral use of enzymes, including papase<sup>5</sup>, cellulase<sup>6</sup>, and kanulase<sup>4</sup>, to successfully dissolve phytobezoars has been reported. The proteolytic enzyme (papase) probably attacks the protein bond in the cellulose fiber, while the cellulase attacks the cellulose fiber itself. Kanulase is a combination of papase and cellulase. Treatment through the use of oral enzymes can be quite prolonged, as well as unpredictable.<sup>7</sup>

We favor the use of the endoscope for the following reasons: A gastric bezoar is usually appreciated initially when a diagnostic esophago-gastro-duodenoscopy is being

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# Understanding Acute Respiratory Failure

## And Aspects Of Treatment

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**THIS DISCUSSION** will be limited to respiratory failure in adult patients. The overall common denominator in acute respiratory failure is a reduction in lung compliance, as determined by an underlying decrease in functional residual capacity (FRC). Normal value of FRC is approximately 1/2 the total lung volume. When FRC is decreased due either to filling of the alveoli with fluid or to defective function of surfactant, lung compliance is reduced and increased work of breathing results. Sequelae of reductions in FRC include: reduced expiratory flow, reduced incidence of spontaneous deep breaths, reduced compliance, increases in alveolar-to-arterial oxygen gradients, increases in intra-pulmonary shunt or venous admixture, increased extravascular lung water, and impaired ventilation-to-perfusion relationships.<sup>1</sup>

Extensive investigation during acute respiratory failure has revealed an abnormal increase in the permeability of the pulmonary capillary.<sup>2,3</sup> This leads to an overall increase in lung water, or interstitial fluid, and reduced lung compliance.<sup>4</sup> A major suspect in causing the increased permeability of the pulmonary capillary bed is thought to be microemboli, derived from blood.

Acute respiratory failure in patients with chronic lung disease is not an infrequent disorder.<sup>5</sup> Causes of acute respiratory failure in patients with pre-existing chronic lung disease include: infection, congestive heart failure, and iatrogenic causes such as overzealous use of sedative-type drugs. An initial diagnosis can be suspected by an arterial blood gas analysis revealing carbon dioxide tensions greater than 50 and oxygen tensions less than 50 mm Hg, along with other clinical symptoms.

The therapeutic objectives which must be kept in mind when providing therapy for acute respiratory failure are twofold; namely, maintenance of adequate ventilation and oxygenation, as well as medical management of the primary cause and its consequence.<sup>6</sup>

**THE SUBJECT** of adequate ventilation and oxygenation has appeared frequently in the medical literature over the past few years. Different modes of ventilation, such as intermittent mandatory ventilation and positive end-expiratory pressure, (PEEP), are now receiving much attention. Intermittent mandatory ventilation,<sup>7</sup> a technique whereby both spontaneous and positive pressure ventilation are achieved, has been attractive to many clinicians. It offers a more rational approach for the maintenance of mechanical ventilation as well as indicating and achieving the discontinuation of its use.

We have adopted the technique of intermittent mandatory ventilation exclusively when performing mechanical ventilation for patients requiring respiratory support. One of the main benefits of intermittent mandatory ventilation is the avoidance of respiratory alkalosis and its adverse effects on cerebral blood flow, cardiac output, lung compliance, airway resistance, oxygen consumption, oxyhemoglobin dissociation, ventilatory-to-perfusion relationships, coronary sinus flow, and electrolyte imbalance.<sup>7,8</sup> The effect of alkalosis on increasing oxygen consumption is appreciated.<sup>9</sup> This is thought to be mediated by a subsequent reduction in intracellular hydrogen ion concentration.<sup>10</sup> That reductions in arterial carbon dioxide tensions increase airway resistance, reduce lung compliance, and reduce the efficiency of the respiratory musculature has been documented.<sup>11</sup>

A salient feature of intermittent mandatory ventilation is that mean airway pressure is lower as compared to controlled mechanical ventilation.<sup>7</sup> This is beneficial in that venous return is not as extensively impeded and the incidence of barotrauma is diminished. It also should be no surprise that levels of PEEP are better tolerated with intermittent mandatory ventilation than with controlled mechanical ventilation, because of the lower levels of intrathoracic pressures.

PEEP is employed in acute respiratory failure to "recruit," or reopen, collapsed alveoli and thereby reduce intrapulmonary shunt. PEEP diminishes lung fluid, thereby reducing opening and closing pressures of pulmonary subunits.<sup>12</sup> An unstable alveolus with an abnormal increase in surface tension collapses when transpulmonary pressure is low and reopens only when transpulmonary pressures are high.<sup>13</sup> High transpulmonary pressures (the difference between pleural and alveolar pressures) can be achieved with PEEP. The amount of PEEP necessary to reopen collapsed alveoli and overcome intrapulmonary shunt may be higher than previously thought. PEEP levels up to 44 cm of water, employed with intermittent mandatory ventilation, have been reported with a somewhat surprisingly low incidence of barotrauma (14%).<sup>14</sup> Once alveoli are reopened and intrapulmonary shunt is effectively decreased utilizing PEEP, the high pressures initially needed to reopen collapsed alveoli may not be required for a prolonged period of time to maintain them patent.<sup>12</sup>

**SOME INVESTIGATORS** have advocated static lung compliance to define the optimal or "best" levels of PEEP to employ.<sup>15</sup> Since the objective of PEEP is to overcome intrapulmonary shunt, it seems more rational to measure actual intrapulmonary shunting in order to define the appropriate level of PEEP. Because calculation of intrapulmonary shunt necessitates gas tension

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analysis of true mixed venous blood, and also because the hemodynamic effects of PEEP are not quantitatively predictable. Swan Ganz catheters are utilized in patients requiring this type of therapy.

The hemodynamic consequences of PEEP have been studied extensively.<sup>16,17</sup> PEEP may increase *measured* intracardiac filling pressures (pulmonary capillary wedge pressures) obtained with the Swan Ganz catheter, but in actuality it reduces the *true* filling pressure or transmural pressure (the difference between measured pressure and intrapleural pressure would equal the transmural pressure or true intracardiac filling pressure).<sup>16</sup> If true filling pressures are significantly reduced, a reduction in stroke volume, and therefore cardiac output, may result. Appropriate therapy at that time would include augmentation of blood volume with either crystalloid or colloid therapy. The amount of intravenous infusion required to increase transmural or true cardiac filling pressures is less when one employs PEEP with intermittent mandatory ventilation, as opposed to PEEP with controlled ventilation. PEEP levels of less than 10 cm of water probably do not appreciably affect hemodynamic parameters.<sup>18</sup> However, as higher levels of PEEP are employed, *measured* intracardiac pressures are appreciably affected. This fact must be appreciated because upon discontinuation of PEEP, *measured* pressures are reduced and transmural or *true* intracardiac filling pressures are increased. Normal values may then be exceeded and cardiac failure ensue.<sup>16</sup> The overall effect of PEEP on cardiac output is dependent upon blood volume, myocardial contractility, afterload, and preload.

When delivering positive pressure ventilation, one must be aware that pulmonary hyperinflation may occur and lead to barotrauma (pneumothorax, pneumomediastinum, etc.). The two most frequent mechanisms causing hyperinflation are a ball-valve type of airway obstruction and disorders of differential lung compliance.<sup>20</sup> Hyperinflation of one lung segment may occur as compared to underinflation of other lung segments. This may eventually result in rupture of the overinflated segments.

**THERE ARE CERTAIN** maneuvers which may be performed by patients in order to alleviate or prevent respiratory failure. These techniques are designed to maintain patent airways and inflated alveoli, and therefore normal levels of FRC. An ideal maneuver would include a high alveolar inflating pressure, held for the longest possible alveolar inflating time, delivering the largest possible inflating volume.<sup>21</sup> This can be accomplished by having the patient sustain a maximum voluntary inspiration. Should patient compliance be suboptimal, this ideal maneuver can be encouraged with use of an incentive spirometer. It is especially important to maintain normal levels of lung volumes in the dependent lung zones because the transpulmonary pressure (difference between alveolar and pleural pressure) is least in this region. Due to this latter phenomenon, expiration from total lung capacity down to levels of residual volume may result in small airway closure in the dependent zones.<sup>22</sup>

Utilizing intermittent mandatory ventilation we adhere to a specific protocol. We begin ventilation in adult

patients at a rate of 8 breaths per minute, tidal volume of 12 ml/kg, inspired oxygen concentration of 50%, and zero levels of PEEP. We direct attention to reducing  $F_{I}O_2$  first, then respiratory rate, and PEEP last. The rate of the ventilator is decreased at a rate of 1 breath per hour if an acceptable oxygen tension is present (a  $pO_2$  greater than 60 mm Hg on an inspired oxygen concentration of less than 50%) and pH is greater than 7.30. Extubation is usually carried out at a respiratory rate of 1 breath every 1 to 2 minutes. PEEP is added in increments of 3-5 cm. of water if intrapulmonary shunt (or venous admixture, depending on the inspired oxygen concentration) has been measured to be in excess of 20%. Once intrapulmonary shunt has been reduced to levels of 20%, then PEEP is reduced in rates of 2-3 cm of water as long as intrapulmonary shunt remains less than 20%. Should shunt calculations be unavailable, a  $PaO_2/F_{I}O_2$  ratio of greater than 300 would be acceptable (assuming oxygen consumption and cardiac output are normal). Extubation is carried out at levels of 2-3 cm water PEEP (i.e. we do not completely remove the patient from PEEP prior to extubation). Since one of the objectives of PEEP is to re-expand previously collapsed airways and alveoli, then it would make sense to carry out extubation when lung volume has been expanded.

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Bibliography available upon request. ●

## PEDIATRIC RADIOLOGY WORKSHOP

The Institute for Pediatric Radiology and Chas. E. Shopfner, M.D. will present a "Workshop in Pediatric Radiology" on March 26-27, 1977, at the New Orleans Marriott Hotel, Canal and Chartres Sts., New Orleans, La.

This continuing education program is approved for 13 credit hours, Physician's Recognition Award, Category 1, by the American Medical Association and for 13 credit hours, Category III-D by the American Osteopathic Association. For information write: Institute for Pediatric Radiology, 4148 North Cleveland Avenue, Kansas City, Missouri 64117. ●

## EMERGENCY MEDICINE: CLINICAL-RADIOLOGICAL CORRELATION

This interspecialty postgraduate seminar will be presented March 18-20, 1977 at Pointe West Resort in Phoenix, Arizona. Content will be directed to Radiologists and Emergency Room Physicians. The course is approved for 14 hours of Category I, American Medical Association Credit. Tuition \$110.00.

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See next page for brief summary

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**Warnings.** Drowsiness may occur. PHENOBARBITAL. MAY BE HABIT-FORMING.

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**Adverse Reactions.** Mild epigastric distress, palpitation, tremulousness, insomnia, difficulty of micturition, and CNS stimulation have been reported.

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## ENDOSCOPIC DISRUPTION OF GASTRIC BEZOARS

CONTINUED FROM PAGE 35

performed on a post-gastrectomy patient complaining of nausea, vomiting, and epigastric pain. It is my personal opinion that the bezoar will be missed on the upper G.I. series more than 50% of the time. With the endoscope already in the stomach, it is quite easy to begin enzymatic treatment.

The patient should always have follow-up gastroscopy to be sure that the bezoar is gone, as well as to evaluate the gastric pouch and stoma, the examination of which is impossible with the bezoar being present at the initial gastroscopy. The pouch commonly has gastritis; and an erosion or an ulcer may be seen, usually on the posterior wall due to the pressure of the bezoar. It is imperative to evaluate the stoma for stenosis as well as ulceration. While some feel that stenosis is rarely found in bezoar formation,<sup>3</sup> this has not been our experience.

It is interesting to note that the patients treated by the method outlined above often complain of profuse diarrhea for 24-36 hours while the bezoar is being passed down the gastrointestinal tract. This is possibly due to the enzyme itself or to the "dumping effect" of the bezoar and enzyme passing from the stomach into the small intestine—or even perhaps due to an increased bacterial count in the stagnant bezoar.

Following the dissolution of the bezoar, the patient is placed on a low fiber diet, instructed to chew his food well, and specifically cautioned against eating citrus fruit. He is not placed on an oral enzyme unless the bezoar is recurrent.

We feel that enzymatic dissolution by gastroscopy is the quickest and easiest, as well as the most diagnostically and therapeutically accurate means of treating a gastric bezoar.

## SUMMARY

Four cases of phytobezoar formation in post-surgical stomachs are presented. Pathogenesis and treatment are outlined with emphasis on the use of the fiberoptic gastroscope for enzymatic bezoar injection and disruption.

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# The Hematologic Changes Caused By Alcohol

Thomas W. Sheehy, M.D.\*

Today, there are over 10 million alcoholics in the United States, and 25 percent of them suffer the complications of alcoholism. In Alabama, there are about 25 alcoholics per 1000 population.

Alcoholism is fourth among the nation's health problems; it is outranked only by heart, cancer, and mental illnesses. The cost of alcoholism is enormous. It is estimated to be in the range of billions of dollars; its effect on families, particularly the children of alcoholics, is beyond estimate. Obviously, alcoholism is a serious problem for the nation and for the afflicted individual. However, the primary concern in this treatise is the effect of alcohol on hematopoiesis.

## A TOXIN VERSUS NUTRITIONAL DEFICIENCY

Almost a century has passed since Gram first observed impaired hematopoiesis in alcoholics with liver disease. Since then, our knowledge of the hematologic effects of alcohol has expanded greatly and Table 1 summarizes some of the landmark observations made in the past 40 years.

In 1937, Bianco observed that alcohol depressed hematopoiesis. He attributed this effect to the poor nutritional status of his patients<sup>1</sup>. Ever since, alcohol, liver disease, and poor nutrition have been considered to have mutually detrimental effects on the bone marrow.

In 1955, Jandl suggested that alcohol was a *bone marrow toxin*, after observing reticulocytosis in five cirrhotics with anemia<sup>2</sup> admitted to Massachusetts General Hospital. One year later (1956), he and Lear found subnormal urinary folate excretion (L. Casei) in several alcoholics. They were able to correct both the subnormal folate excretion and the megaloblastic anemia of their patients with physiological doses of folic acid, 100 UG daily<sup>3</sup>.

Following Baker's introduction of an effective method for assaying serum folate activity in 1959, our ability to diagnose folate deficiency improved considerably<sup>4</sup>. Shortly thereafter, Herbert and his associates found low serum folate levels in 80 percent of 70 alcoholics with cirrhosis<sup>5</sup>. They observed that alcoholic abuse correlated well with decreased serum folate levels but failed to correlate with dietary habits. Hence, they concluded that alcohol had a direct toxic effect on hematopoiesis.

After it was found that man's minimal daily requirements for folic acid was about 50 UG<sup>6,7</sup>, Sullivan and Herbert showed that 50 UG of supplemental folic acid daily would correct folate deficiency anemia in non-alcoholics but not in alcoholics who continued to drink heavily.

In a classic study, Herbert proved that alcohol suppressed hematopoiesis. He studied an alcoholic waitress with megaloblastic anemia secondary to folate deficiency on a metabolic ward for 165 days. After initial care, she was

started on a low folate diet, (5 ug) supplemented with 50 UG of folic acid daily. This dose of folic acid failed to induce normal hematopoiesis. However, ten days after her folate supplement was increased from 50 to 75 UG daily, she developed a reticulocyte response. This response was halted abruptly by giving the patient 12 ounces of whiskey and 32 ounces of wine daily. Neither contains folic acid. On three later occasions, abstinence, with continuation of the folate supplement, led to a reticulocytosis, a fall in serum iron levels, and a reversion of megaloblastic to normal hematopoiesis, while a resumption of alcohol intake, (whiskey, 15 oz. daily) was followed by a reticulocytopenia and reversion of normal hematopoiesis to the megaloblastic state. On four occasions, alcohol effectively stopped an erythropoietic response despite an adequate folate intake. Here was proof that alcohol impaired folate metabolism as well as hematopoiesis.

Alcohol appeared to have two effects on erythropoiesis:

1. It interfered with folate metabolism as shown by the striking conversion from a normoblastic to megaloblastic erythropoiesis 4 to 10 days after the start of alcohol ingestion and despite a folate intake sufficient to maintain normal hematopoiesis in non-alcoholics.

2. It suppressed erythropoiesis directly, as shown by the prompt reticulocytosis that occurred with abstinence.

Alcohol was also found to accelerate a fall in serum folate levels<sup>9</sup>. Volunteers given a low folate diet plus alcohol had greater and faster falls in their serum folate levels than individuals eating the same type diet but abstaining from alcohol.

Subsequent studies revealed that alcohol has other anti-folate activities. It inhibits the enzyme, tetrahydrofolate formylase (THF), thus blocking incorporation of C<sup>14</sup>-labelled formate into red cell DNA, interferes with the delivery of N-5 methyl tetrahydrofolic acid from storage areas to the bone marrow and impairs the absorption of folate<sup>10-11</sup>. Halstead found alcohol decreased the absorption of orally administered isotopically labelled pteroylglutamic acid (<sup>3</sup>H-PGA) in alcoholics maintained on alcohol for only 10 days<sup>11,12</sup>. Abstinence or a good diet led to a return of normal folate absorption.

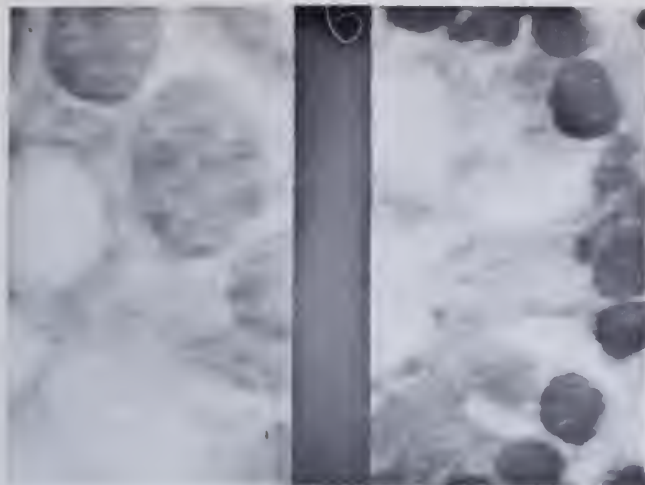
TABLE 1

## ALCOHOL AND HEMATOPOIESIS

1884	-	GRAM	-	IMPAIRED HEMATOPOIESIS
1907	-	TALLEY	-	IMPAIRED HEMATOPOIESIS
1937	-	BIANCO	-	NUTRITIONAL
1955	-	JANDL	-	TOXIN
1963	-	McFARLAND LIBRE	-	LEUCOPENIA
1964	-	SULLIVAN HERBERT	-	FOLATE METABOLISM
1969	-	LINDENBAUR LIEBER	-	VACUOLATION-THROMBOCYTOPENIA

\*Professor of Medicine, University of Alabama School of Medicine, and Chief, Medical Service, Veterans Administration Hospital, Birmingham, Alabama 35233.





**FIGURE 1**—Compare the large macrocytic nuclei present in small bowel crypts of a patient with severe nutritional folate deficiency with the normal appearing nuclei of a patient with giardiasis.

These combined actions lead to striking falls in serum folate levels of alcoholics on a binge, i.e., within 8 to 20 hours.

Alcohol also injures the intestinal mucosa and impairs the absorption of other nutrients. In one study, continued alcohol consumption by noncirrhotic alcoholics led to steatorrhea in 60 percent, impaired d-xylose secretion in 76 percent, and abnormal vitamin B-12 absorption in 53 percent. Water, sodium, and glucose absorption were also impaired. Figure 1 compares the macrocytic changes seen in the jejunal crypt cells of an alcoholic with folate deficiency with those of a normal individual. Such changes disappear rapidly with folate administration or abstinence and ingestion of a good diet. Most likely, these epithelial cell changes contribute to impaired absorption in alcoholics.

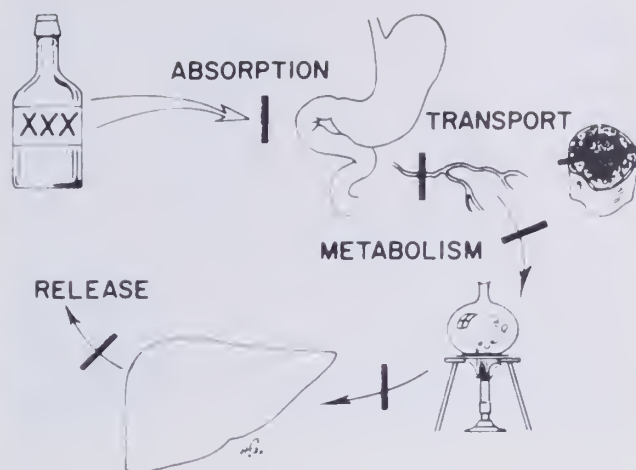
The skid-row alcoholic's tendency to sell his blood for money also plays a role in folate depletion. The contribution of one unit of whole blood may double the alcoholic's daily need for folate and further hasten onset of folate deficiency.

In summary, alcohol interferes with the absorption, transport, metabolism, and release of folic acid from the liver and its utilization by the bone marrow (Figure 2).

## ALCOHOL AND IRON METABOLISM

### IRON AND PYRIDOXINE

Alcohol impairs iron as well as folate metabolism and may cause a reversible sideroblastic anemia. The sideroblastic or "iron loading" anemias are a diverse group of hereditary and acquired disorders characterized by a hypochromic or dimorphic anemia, elevated serum iron levels, erythroid hyperplasia, and a distinctive cell, the "ringed sideroblast"<sup>13</sup>. The nuclei of these cells are ringed by ferritin particles. Normally, iron particles are dispersed throughout red cell cytoplasm, but in sideroblasts they are found between the cristae and mitochondria<sup>14</sup>. Large numbers of these cells may be found in iron stained bone marrow preparations of alcoholics. In the alcoholic, these cells result from impaired pyridoxine metabolism.



**FIGURE 2** FOLATE BLOCKS IN ALCOHOLISM

Daily ingestion of alcohol for three weeks impairs the ability of the red cell enzyme, pyridoxal kinase, to convert "pyridoxine to pyridoxal phosphate." This coenzyme is the co-factor required by delta aminolevulinic acid synthetase for heme synthesis. A lack of the co-factor blocks iron utilization, leads to a rise in the serum iron levels, impairs red cell iron incorporation, and leads to sideroblast formation.

Abstinence leads to the disappearance of sideroblasts from the alcoholic's bone marrow within 48 to 72 hours. The administration of pyridoxine has the same effect, even if the alcoholic continues to drink<sup>15</sup>.

Alcohol also effects iron absorption. MacDonald believes hemochromatosis results from a combination of alcoholism and poor nutrition<sup>16</sup>. Cirrhotics absorb more iron than normal individuals<sup>17</sup>. This has been attributed to associated chronic pancreatitis because the administration of pancreatic enzymes to cirrhotics with increased iron absorption decreases their ability to absorb iron<sup>18,19</sup>. Alcohol also increases the absorption of ferric chloride<sup>20</sup>.

To a certain extent, the skid-row alcoholic who sells his blood protects himself against alcohol-induced iron overload while he invites folate deficiency.

Alcohol may also lead to iron deficiency by inducing gastrointestinal blood loss. Volunteers with atrophic gastritis given 200 ml of alcohol daily quickly develop bleeding gastritis whereas those with superficial gastritis or normal mucosa are rarely effected.

### HEMATOPOIETIC STAGES

In a metabolic study of 65 skid-row alcoholics, Eichner and his associates confirmed many of the previously mentioned folate and iron abnormalities induced by alcohol. Subsequently, they evolved a schema depicting the evolution of alcoholic anemia by stages<sup>21</sup>.

**Stage 1**, the stage of "negative vitamin balance" follows daily alcohol ingestion and decreased food intake. It is accompanied by a precipitous drop in serum folate levels secondary to the changes mentioned previously; the appearance of vacuolated erythroid (Figure 3) and mye-

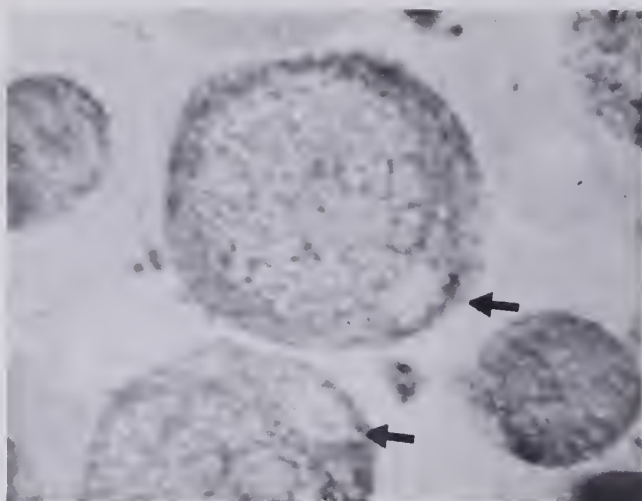


FIGURE 3—Vacuolated megaloblast with arrows pointing to cytoplasmic vacuoles.

loid precursors in the bone marrow and a fall in serum iron levels.

**Stage 2**, the stage of "megaloblastic conversion", is manifested by change from normoblastic to megaloblastic erythropoiesis. Alcohol accelerates this stage. It can occur after 1 to 3 weeks of drinking by the alcoholic in contrast to 3 to 4 months in the non-alcoholic who begins to drink and fails to eat properly.

**Stage 3**, the "sideroblastic" stage, begins at variable intervals after Stage 1. It is absent with iron deficiency and disappears with administration of 1 mg of pyridoxine daily.

**Stage 4**, the "resolution stage", follows abstinence, improved diet, or the administration of adequate folic acid and pyridoxine.

#### EFFECTS OF ALCOHOL IN WELL NOURISHED INDIVIDUALS

The studies referred to previously reflect the effect of alcohol on patients ingesting a poor diet, not those partaking a nutritious balanced diet. The hematopoietic effects of alcohol in the latter was investigated by Lindenbaum and Lieber who fed volunteers a nutritious diet containing adequate protein, minerals, and vitamins, plus pharmacological doses of folic acid and pyridoxine<sup>22</sup>. The alcoholic intake of their volunteers was increased gradually over several weeks until it comprised 40 to 63 percent of their daily caloric intake. Despite these large amounts of alcohol, few hematopoietic changes were observed. Indeed, the only major hematopoietic changes observed were erythroid vacuolation, increased serum iron levels and, significantly, thrombocytopenia in 4 of 9 volunteers. In the absence of nutritional deficiency, alcohol failed to induce either megaloblastic or sideroblastic changes in the bone marrow.

Hence, it appears that almost all alcohol-induced hematologic changes can be prevented by an adequate diet.



FIGURE 4—Arrows point to stomatocyte in alcoholic with iron deficiency.

#### HEMOLYTIC ANEMIA

Three distinct hemolytic syndromes have been attributed to alcohol, (1) *stomatocytosis*, (2) *spur cell anemia*, and (3) *Zieve's syndrome*.

*Stomatocytes* are red cells with an unstained central slit or mouthlike area (Figure 4). Hereditary stomatocytosis, a rare disease, is an autosomal condition wherein 20 to 30 percent of the peripheral red cells are stomatocytes<sup>23</sup>. This condition mimics hereditary spherocytosis but the anemia is only partially corrected by splenectomy.

Acquired stomatocytosis occurs in alcoholics with fatty livers and hepatic dysfunction. Its cause is unknown. There is no splenomegaly and serum lipid and cholesterol levels are normal. Normally, 4 percent of peripheral red cells are stomatocytes, but in the acquired condition 20 to 30 percent are stomatocytes. The decreased erythrocyte survival found in alcoholic stomatocytosis cannot be attributed to splenic sequestration, elevated blood lipids, or red cell enzyme abnormalities.

Abstinence leads to reversal of stomatocytosis within a month. Sometimes it reoccurs when the patient resumes his drinking habits.

*Zieve's syndrome* is a reversible hemolytic syndrome characterized by transient hypercholesterolemia, lactescent serum, and acute fatty infiltration of the liver<sup>24</sup>. It occurs in the course of prolonged alcohol ingestion. Frequently, the serum amylase level is elevated secondary to pancreatitis. Lysolecithin and lysocephalin levels are elevated in Zieve's syndrome and these agents have been blamed for hemolysis. Serum folate levels may be elevated in the disorder.

*Spur Cell Anemia*, was described in association with alcoholic cirrhosis in 1964<sup>25</sup>. Both patient and donor red cells have a shortened survival in this entity.

Normal red cells given to alcoholic patients with spur cell anemia or incubated in their plasma, develop spurs. Spur cells contain excess cholesterol and when normal red cells are incubated with plasma from a patient with this anemia, the normal cells quickly absorb excess amounts of <sup>14</sup>C-labelled cholesterol. In this entity, free cholesterol is poorly bound to lipoprotein; hence, it is freely



interchangeable with red cell membrane cholesterol. It is not known if spur cells can revert to a normal red cell shape. Three groups claim reversibility occurs; three others deny it<sup>25</sup>.

Bile salts may be related to spur cell formation. Elevated levels of chenodeoxycholic acid have been found in such patients and lithocholic acid, a toxic metabolite of chenodeoxycholic acid, causes spur cell formation of Rhesus monkey erythrocytes.

#### LIVER DISEASE

Table 2 lists the causes of anemia in chronic liver disease. Many of these same anemias occur with alcoholism alone. Hypersplenism causes hemolysis in 1 of 6 patients with chronic liver disease. Splenectomy rarely relieves the anemia unless it is accompanied by portal hypertension.

Microangiopathic hemolytic anemia is rare and occurs primarily in patients with hemangioendothelioma.

Autoimmune hemolysis with a positive Coomb's test occasionally complicates hepatocellular disease. The presence of G-6-PD deficiency may induce severe hemolysis in the patients with alcoholic hepatitis.

Chronic liver disease may also give rise to an extra-corporeal defect. Cross transfusion studies have shown that when normal red cells are given to patients with obstructive jaundice their survival is decreased. In contrast, patient red cells survive normally in healthy individuals. Conjugated bilirubin may be the factor responsible for this type hemolysis.

Alcohol has also been found to induce Sick Cell crisis and may lead to "stress polycythemia."

#### ALCOHOL AND GRANULOCYTES

Since 1963, some alcoholics have been observed with leucopenia in the face of severe infections<sup>26</sup>. Leucopenia and thrombocytopenia have also been documented in volunteers subjected to prolonged ethanol ingestion<sup>28</sup>. Alcoholics are more susceptible to pneumococcal infections than normal individuals and once afflicted, their pneumonia is more severe than in non-alcoholics. Table 3 lists some of the major effects of alcohol on granulopoiesis.

(1) Alcohol is toxic to pulmonary macrophages and recently monocytes and pulmonary macrophages have been found to be sources of colony-stimulating factor.

(2) It impairs DNA formation and inhibits tritiated thymidine (3HRDR) uptake by bone marrow, DNA, and white cell precursors.

(3) It alters immune defense. Increasing large concentrations of alcohol inhibit phytohemagglutinin induced lymphocyte transformation, suggesting T-cell depression. There is suggestive evidence that it also decrease macrophage and granulocyte production IN VITRO. This impairment of the immune defenses probably relates to the alcoholics increased susceptibility to infection.

(4) It alters the response to endotoxin administrations, leading to neutropenia in the alcoholic instead of a granulocyte increase. Curiously, this phenomenon is corrected by splenectomy. Failure to respond to endotoxin may be relate to the alcoholic's impaired ability to handle

TABLE 2--TYPES OF ANEMIA  
ASSOCIATED WITH CIRRHOSIS

#### TYPES OF ANEMIA

HEMOLYTIC	ZIEVE'S SYNDROME
SPUR CELL	HYPERSPLENISM
MICRO-ANGIOPATHIC	FOLATE DEFICIENCY
AUTOIMMUNE	SIDEROBLASTIC
G-6-PD DEFICIENCY	HYPERVOLEMIA
EXTRA CORPUSCULAR	BLOOD LOSS

TABLE 3

#### MAJOR EFFECTS OF ALCOHOL ON WBC

1. TOXIC TO MACROPHAGES → CSF
2. IMPAIRS DNA FORMATION AND 3HTDR UPTAKE
3. DEPRESSES T CELL FORMATION
4. DECREASES GRANULOCYTE PRODUCTION
5. ALTERS GRANULOCYTE RESPONSE TO ENDOTOXIN
6. DECREASES LEUCOCYTE MOBILIZATION
7. IMPAIRS LEUCOCYTE CHEMOTAXIS

TABLE 4

#### ALCOHOLIC EFFECTS ON PLATELETS

1. INHIBITS EPINEPHRINE AND COLLAGEN INDUCED AGGREGATION
2. INCREASES BLEEDING TIME - PLASMA SUBSTANCE DECREASES AGGREGATION
3. IMPAIRS SECONDARY AGGREGATION
4. SHORTENS LIFE SPAN - MEGATHROMBOCYTES
5. DECREASES AVAILABILITY OF PF-3
6. DECREASES ADENINE-NUCLEOTIDE RELEASE
7. ALTERS PLATELET MEMBRANE STRUCTURE

gram negative infections. A decreased granulocyte reserve has been postulated as the cause for the alcoholic's failure to respond to endotoxin.

(5) Alcohol decreases leucocyte mobilization into areas of trauma. This phenomenon was observed in the skin of volunteers 2 to 4 hours after they receive 50 to 75 ml of 95 percent ethanol intravenously. A similar decrease is observed with medical shock but not with cirrhosis, uremia, or major surgery.

(6) At concentrations of 100 mg/100 ml, alcohol impairs leucocyte chemotaxis, IN VITRO, but it does not interfere with leucocyte phagocytosis or bactericidal activity.

## ALCOHOL AND PLATELETS

Thrombocytopenia may develop in the wake of acute alcoholism or during acute withdrawal<sup>27,29</sup>. Table 4 lists the effects of alcohol on platelets.

Cowan and Hinds studied 43 alcoholics admitted to the Cleveland Metropolitan General Hospital with alcohol withdrawal<sup>29</sup>. Their patients had ingested a fifth or more of whiskey daily for at least three months. None had gastrointestinal bleeding or severe liver disease but 36 had platelet counts below 100,000/cu mm. No consistent relationship was found between their decreased platelet counts or their hematocrits, serum folate levels, or bone marrow changes. On a normal diet, these patients had a platelet rise within 2 to 3 days, with daily increases of 20 to 30,000 platelets/ml.

Even in the absence of folate deficiency, alcoholic platelets have a shortened life span, a finding reflected in the increase of peripheral megathrombocytes.

Thrombocytopenia adds another potentially lethal hazard to the life of the accident prone alcoholic who may have a deficiency of plasma clotting factors, or impaired platelet function due to the ingestion of aspirins or other drugs.

## SUMMARY

The erythropoietic effects of alcoholism are multifactorial and related to protein caloric malnutrition as well as folate, pyridoxine, and iron deficiency, liver disease, and lipemia.

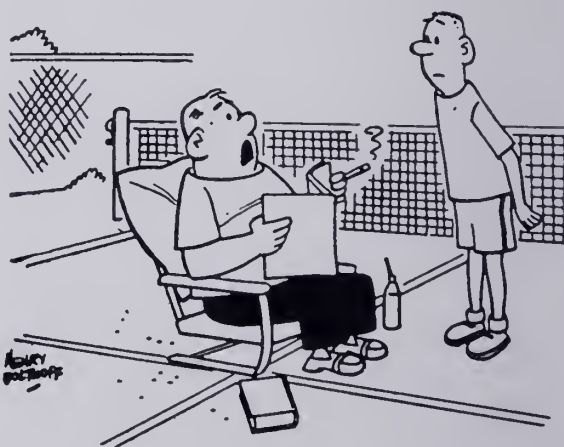
Granulocytopoiesis is impaired in several ways leading to increased susceptibility to infection and to an altered response to infections. Alcohol acts both as a myelosuppressant and immunosuppressant.

Finally, alcohol, through its thrombocytopenic effect, increases the alcoholic's risk for hemorrhage.

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Request for reprints: Dr. Thomas W. Sheehy, Chief, Medical Service, Veterans Administration Hospital, Birmingham, Alabama 35233. ●



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**Brief Summary of  
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**Actions:** Pyrvinium pamoate appears to exert its anthelmintic effect by preventing the parasite from using exogenous carbohydrates. The parasite's endogenous reserves are depleted, and it dies. Povan is not appreciably absorbed from the gastrointestinal tract.

**Indication:** Povan is indicated for the treatment of enterobiasis.

**Warnings:** No animal or human reproduction studies have been performed. Therefore, the use of this drug during pregnancy requires that the potential benefits be weighed against its possible hazards to the mother and fetus.

**Precautions:** To forestall undue concern and help avoid accidental staining, patients and parents should be advised of the staining properties of Povan. Care should be exercised not to spill the suspension because it will stain most materials. Tablets should be swallowed whole to avoid staining of teeth. Parents and patients should be informed that pyrvinium pamoate will color the stool a bright red. This is not harmful to the patient. If emesis occurs, the vomitus will probably be colored red and will stain most materials.

**Adverse Reactions:** Nausea, vomiting, cramping, diarrhea, and hypersensitivity reactions (photosensitization and other allergic reactions) have been reported. The gastrointestinal reactions occur more often in older children and adults who have received large doses. Emesis is more frequently seen with Povan Suspension than with Povan Filmseals.

**How Supplied:** Each Povan Filmseal® contains pyrvinium pamoate equivalent to 50 mg pyrvinium, supplied in bottles of 50 (NDC 0710-0747-50; NSN 6505-00-134-1966). Povan Suspension, a pleasant-tasting, strawberry-flavored preparation containing pyrvinium pamoate equivalent to 10 mg pyrvinium per milliliter, is supplied in 2-oz bottles (NDC 0071-1254-31; NSN 6505-00-890-1093).

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# THERE ARE A LOT OF PEOPLE GETTING BETWEEN YOU AND YOUR PATIENT.

Medicine today is in the spotlight, subjected to all kinds of scrutiny. Your control over patient therapy is being monitored, judged and occasionally abrogated, sometimes by unknown third parties.

The worry is that in the wake of this focus, the relationship between you and your patient will be weakened, without offsetting benefits. Consider three examples:

**Drug substitution** In most states, pharmacy laws, regulations or professional custom stipulate that your on-generic prescriptions be filled with the precise products you prescribe. But in the last five years, a dozen or more State laws have been changed, permitting the pharmacist in most cases to select a product of the same generic drug to fill any prescription.

Ironically, this dilution of physician control has taken place against a background of growing evidence that purportedly equivalent drug products may be inequivalent, since neither present drug standards nor their enforcement are optimal. In fact, the FDA itself says it has not enforced the same standards for hundreds of "follow-on" products that it had applied to the original FDA approvals. Thus physician control over patient therapy is being eroded with a risk that patients may be exposed to drugs of uncertain quality.

The major advertised claim for substitution is reduced prescription prices for consumers. Yet no documentation of any significant savings has been produced.

**MAC** Maximum Allowable Cost, MAC for short, is a Federal regulation designed to cut the Government's drug bill by setting price ceilings for drugs dispensed to Medicare and Medicaid patients. Unless the prescriber certifies on the prescription that a particular product is medically necessary, the Government intends to pay only the cost of the lowest-priced, purportedly-equivalent,

generally-available product. The effect of the program may be that elderly and indigent patients will be restricted to products which someone in Washington believes are priced right. Practicing doctors will have little to say about administration of the program, since Government will have absolute authority to make its choices stick.

**The drug lag** The future of drug and device research depends upon a scientific and regulatory environment that encourages therapeutic innovations. The American pharmaceutical industry annually is spending more than \$1 billion of its own funds and evaluating more than 1,200 investigational compounds in clinical research. Disease targets include cancer, atherosclerosis, viruses and central nervous system disorders, among others. But there is a major barrier to the flow of new drugs to your patients: The cost of the research is more than ten times what it was, per product, in 1962; and whereas governmental clearance of new drug applications took six months then, it commonly consumes two years now.

The FDA needs adequate time, of course, to consider data. But it is equally clear that the present approval process contributes to needless delay of needed therapy. That's why the increased efficiency of the drug approval process is vital to all our futures.

If these issues concern you, we suggest that you make your voice heard—among your colleagues and your representatives in State legislatures and in Washington.

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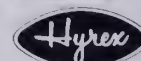
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## Financial Aid Available From Leukemia Society

Did you know that most leukemia, lymphoma, and Hodgkin's disease patients in Alabama are eligible for financial assistance from the Leukemia Society of America, Inc.? Surprisingly, of the 1000 - 1500\* such patients in Alabama eligible for this assistance, only 200 have applied. Do your patients know of the Society and its programs? They should.

The Alabama Chapter of the Leukemia Society of America, Inc., provides supplementary financial assistance to patients with leukemia, the lymphomas and Hodgkin's disease, as well as referral services to other sources of help in the community.

The program, supported entirely by public contributions, is administered through the Alabama Chapter office located in Birmingham. Intended to ease the unusual dollar-drain on personal or family finances, it enables those who need it to obtain the lengthy and complex treatment required to control these serious disorders of the blood-forming organs.

### SCOPE OF ASSISTANCE

Financial assistance is given by the Society to outpatients being treated for leukemia, the lymphomas and Hodgkin's disease.

Assistance is available to all qualified patients without discrimination as to age, race, color or creed. It begins on the date an application is received in the Chapter office, provided the application is later formally approved by the Chapter Patient-Aid Committee.

Aid is limited, in all cases, to expenditures not covered by other sources. However, patients receiving Federal, State, County, Local Aid, Social Security, Blue Cross, Blue Shield or Medicare may be eligible for aid from the Leukemia Society. Leukemia Society assistance cannot be a duplication of funds received from these or other sources.

### THE OUTPATIENT-AID PROGRAM COVERS PAYMENT FOR:

1. **DRUGS** used in the care, treatment and/or control of leukemia and allied diseases as determined by the National Patient-Aid Committee and dispensed by approved drug sources.

2. **TRANSFUSING OF BLOOD**, processing, typing and cross-matching only.

3. **TRANSPORTATION** to and from a doctor's office, hospital or treatment center to the extent specifically approved by the Chapter Patient-Aid Committee.

4. **X-RAY THERAPY** in amounts up to \$300 for patients in the early stages of Hodgkin's disease (Stages I and II), stages in which the disease is considered to be potentially curable.

5. **X-RAY THERAPY** in amounts up to \$300 for cranial (not spinal) radiation for children with acute lymphoblastic leukemia.

### APPLICATION

An application is to be completed by a patient, or in the case of a child, by parent, legal guardian or other responsible adult. It must include the diagnosis and be signed by the attending physician. Application forms may be obtained from Leukemia Society of America, Inc.,

Alabama Chapter, 244 Goodwin Crest, Suite 104, Birmingham, Alabama 35209.

### EMERGENCIES

When need is acute, temporary approval for patient-aid may be given by the President of the Chapter or Chairman of the Chapter Patient-Aid Committee, pending review of application.

\*Projection based on annual incidence data received from Tumor Registry. ●

### DR. S. RICHARDSON HILL, JR. APPOINTED UAB PRESIDENT

Dr. S. Richardson Hill, Jr., has been named president of The University of Alabama in Birmingham. The appointment becomes effective February 1, 1977.

Dr. Hill, who has served as UAB's vice president for health affairs and director of the Medical Center since 1968, is recognized as a leading educator and administrator and was the unanimous choice of the Board and the faculty selection committee. Dr. Hill succeeds Dr. Joseph F. Volker who was UAB's first president. Dr. George W. Campbell, vice president for University College, has served as acting chief executive officer for the past six months. ●



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BY RICHARD E. PALMER, M.D.  
PRESIDENT  
AMERICAN MEDICAL ASSOCIATION

Let me say, right off, that the Presidential election has made our future a good deal foggy as a profession. Let me say, right off, that it has made our tasks and our responsibilities tougher as an association. But I refuse to quail before that future or before those tasks and responsibilities. And I implore you not to.

I implore from you, and I enjoin upon myself, a positive and constructive spirit of courage. Often I think of General George S. Patton, Jr., scion of long lines of Virginians, sweeping his army across France in the face of what he called "damned poor tank country and damned bad weather." And I think of what he used to tell his men: "Go forward—always go forward." "Old Blood and Guts" was a colorful figure, with his ivory-handled pistols, whipcord riding breeches, high-topped cavalry boots and a posture straight as an obelisk. But as another general, Floyd L. Parks, observed: "He never indulged in color for its own sake. There was always a ruthless logic behind the Patton flair."

Let us ponder that phrase, "ruthless logic." What does plain, cool logic demand from *us*? In my view, it demands interrelating what we can do in the face of everything that has to be done. It demands taking a unified approach to problems instead of seeing them in splinters and letting them splinter us. In developing and revising our approach, we must consider its effect upon groups other than ourselves, notably our patients, whom we must look upon not only as friendly individuals, but as an increasingly sensitive and aroused body politic. And we must consider our effect upon the various levels and units of government as well as their impact upon us.

Our Association is a staunch adversary of what we oppose. But we cannot be a credible and effective adversary unless we are, at the same time, a worthy advocate. We have to be positive. Negativism usually is a synonym for nowhere and for getting nowhere.

Having given you my general idea of hard logic, I will apply it to specifics, starting with an extremely arguable specific, National Health Insurance. I cannot say for sure that National Health Insurance will surface as a major legislative concern in the months ahead. President-Elect Carter and the next Congress will have to reckon with its fiscal liabilities regardless of whatever forms of it, or degrees of it, might be considered. However, we do know what the Democratic platform says about NHI and health

policy. We do know what Mr. Carter has more or less said about NHI. We do know that many people routinely and automatically hail it as an idea whose time has come. So we of the AMA must be fully prepared for the time when some momentum hardens that idea into reality. And we must be prepared to go forward in the most logical and effective way we can. We cannot face the issue by turning our backs to it. If we are to offer *nothing* in the way of NHI legislation, we run the terrible risk of getting clobbered with *everything*. *Everything* could be the Kennedy-Corman-labor bill, all at once or blow by blow. That is the direct opposite of the legislation we have proposed in terms of administrative responsibility, monetary mechanisms, and regard for our professional integrity and liberty. Let there be no mistake about those all-important differences. Our approach to NHI is not a surrender to federal usurpation of medical care, but the most sensible and humane way to resist it. Our goal is the joint protection of the patient and the physician without which neither is protected. And, my friends, we've got to be on the playing field, fighting for that goalpost instead of simply sitting in the grandstands, booing the other side.

Some physicians may say: Well, we struggled ardently and foresightedly for Eldercare, and where did that get us? Medicare in 1965 was chosen over Eldercare. My answer is that the next Congress will be less concordant than the Congress that came to power with the "Great Society" euphoria of 1964. The Great Society has become a fiscally overweight society; as many liberals, as well as conservatives, realize. Hence, our support for an administratively and fiscally prudent form of NHI is bound to be influential. Indeed, it already is. Many dozens of Senators and Congressmen have co-sponsored our health-insurance legislation over the years and many have expressed their concurrence to me personally.

We cannot leave these lawmakers empty-handed against extremists who might become more confident in the absence of Presidential vetoes. It is the prerogative of you Delegates to decide what our final plan should offer in clinical, financial, and demographic coverage. But when health insurance becomes a top Congressional priority, let us be on the ready with a measure that can "fly" without sacrificing our principles, a measure that would build on private insurance coverage instead of a new federal program

CONTINUED ON PAGE 52



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**Description:** Each Anusol-HC Suppository contains Hydrocortisone Acetate, 10.0 mg; Bismuth Subgallate, 2.25%; Bismuth Resorcin Compound, 1.75%; Benzyl Benzoate, 1.2%; Peruvian Balsam, 1.8%; Zinc Oxide, 11.0%; also contains the following inactive ingredients: bismuth subiodide, calcium phosphate, and coloring in a bland hydrogenated vegetable oil base.

Each gram of Anusol-HC Cream contains Hydrocortisone Acetate, 5.0 mg; Bismuth Subgallate, 22.5 mg; Bismuth Resorcin Compound, 17.5 mg; Benzyl Benzoate, 12.0 mg; Peruvian Balsam, 18.0 mg; Zinc Oxide, 110.0 mg; also contains the following inactive ingredients: propylene glycol, bismuth subiodide, propylparaben, methylparaben, polysorbate 60, sorbitan monostearate in a water-miscible base of mineral oil and glyceryl monostearate. Nonstaining.

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Anusol-HC is especially indicated when inflammation is present.

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**Warning:** The safe use of topical steroids during pregnancy has not been fully established.

Therefore, during pregnancy they should not be used unnecessarily on extensive areas, in large amounts or for prolonged periods of time.

**Precautions:** Symptomatic relief should not delay definitive diagnoses or treatment. When

there is bacterial skin infection, topical corticosteroids should be used only with appropriate concomitant antimicrobial therapy. Prolonged or excessive use of corticosteroids might produce systemic effects.

**Dosage and Administration:** Anusol-HC Suppositories: Remove foil wrapper and insert suppository into the anus. One suppository in the morning and at bedtime, for 3 to 6 days or until inflammation subsides. Then maintain patient comfort with regular Anusol.

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Cream—one-ounce tube (N 0047-0090-01) with plastic applicator; detachable label.

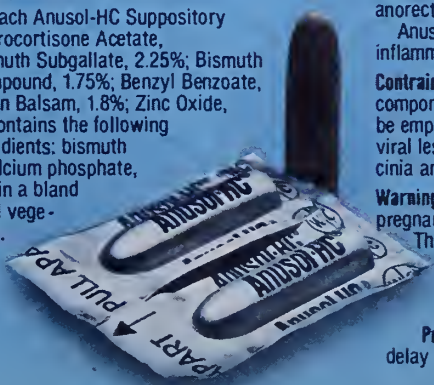
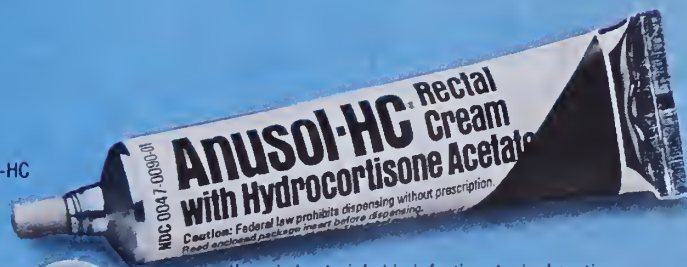
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# "Go Forward—Always Go Forward"

CONTINUED FROM PAGE 50

whose costs would surely bankrupt this land. Medical costs are the nub of the health-care issue and the nub of the attacks on our profession.

Certainly it is unfair that the blame for rising costs has been personalized against the providers of care almost to the exclusion of impersonal, and more conducive, factors; such as the growth and expansion of clinical competence and technology, the growth of health insurance and its incentives to better care, the relentless surge in professional-liability premiums, steady inflation, longevity-related sickness and government waste. It is unfair to blame physicians for excesses in hospital facilities and equipment when they occur.

It is unfair that we physicians are bearing the onus of the Medicare overdependence—and—expense spiral which our Eldercare plan was designed to prevent. It is unfair that all of us, simply because we are physicians, have to stand in the extraneous shadow of Medicaid mills and their franchise medicine, a form of practice the AMA has long opposed.

Nevertheless, it is insufficient for us to point to our historic policies or say, "I told you so" or say that only a tiny percentage of doctors are flouting our ethical standards. In the spirit of General Patton, we must go forward on this issue. And we have been going forward.

Our National Commission of the Cost of Medical Care is busy reviewing and evaluating information that can place the general cost problem in its correct perspective so that suggested remedies can be equally correct and practical. Our Board of Trustees has endorsed in principle the Talmadge bill targeted at Medicaid fraud, a bill virtually certain to be re-introduced. As Congressman Dan Rostenkowski, chairman of the House Subcommittee on Health, has said, an attack on such fraud will have "the highest priority in the next Congress." Our Association has fully backed HEW's special campaign to curb Medicaid abuses in five states. We have offered help to a task force of the National Governors Conference in the development of proposals for upgrading the Medicaid program. We have equipped state medical societies with model legislation to toughen the disciplinary powers of state licensing boards. In New York City, our component societies bolstered local health-department efforts to regulate Medicaid mills only to see the efforts blocked by a judicial ruling.

So along with the strong *language* that you Delegates adopted in Dallas, we have taken strong *action* against the poisons in the bloodstream of care. We have made it plain that we oppose breadline medicine, stamping-mill medicine, canning-factory medicine, as much on the part of Medicaid exploiters as on the part of any eventual British-style National Health Service. But while opposed to any fleecing of the patient and the government, we also resent any fleecing of the physician by the government or by any other third party. If the reasons for the upward costs of care are largely impersonal and inevitable, and I have insisted that they are, then it logically follows that any hatchet job on costs would do a hatchet job on the quality or availability of care. The parity between cost and service

must be protected. That is why we now have a well-staffed Department of Negotiations which keeps going forward. That is why this department holds far-flung institutes and seminars to teach negotiating skills, helps state medical societies structure their negotiations setup and gives on-the-spot or communicated assistance in specific situations.

You and I can expect intensified efforts by government and other outsiders to squeeze us into an airless box of fee-setting and salaried status. If the Health Planning Act of 1974 is upheld by the courts against our joint suit with the State of North Carolina, we can expect moves in Congress next year to make it even more arbitrary and disruptive, including a move for mandatory rate regulation in all states.

Let me assure you that if litigation fails, we will be on Capitol Hill fighting our hardest against noxious amendments to the planning act, and on behalf of reasonable ones. Government is increasingly hitting us physicians in economic self-desperation and blind fury.

Let me assure you that the militance of the AMA is on the increase, too. *Medical Economics* magazine asserted in August that this militance "seems certain to inhibit the spread of medical unionism." And to that, I say, "Great!," because I want our Association to go forward with all the toughness of a real union without taking the anti-professional, anti-social low road to which unions are prone. I want us to go forward—and we will go forward—in many other ways; for, as I said at the outset, coolheaded logic demands from us an interrelated, unified approach to all our problems, a fullness of outlook and performance.

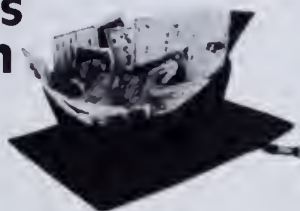
Ours is an umbrella organization not only in whom it represents, but in what it does. We will go forward not only against the threats from Washington but against the threats to you in your sundry states and communities, however you need us. In pleading for unified membership throughout our federation, as I did in my Inaugural, I fully recognize that unity is a *mutual* benefit.

For the benefit of your state and county societies and individual members, we are honing the skills required in negotiations with third parties, as I have said, enhancing our liaison, information, and active assistance on state legislation and regulation and on litigation, offering re-insurance to physician-operated professional-liability programs, spreading and refining our programs of continuing medical education. We are amplifying our liaison with hospital medical staffs, housestaffs, medical academia, the better to go forward against common needs. And far from least, we are amplifying our liaison with the public that elects Presidents and members of Congress. We are actively showing the people that government has no corner on social concern, only on social pretenses. We are showing such activism through concerted health education, rural health planning, planned participation in a joint program to coordinate the care in inner cities, plus other undertakings that affect health and life wherever people are.

I would like to believe we are keeping faith with General Patton who told us "Go forward—always go forward," and that is what the AMA is doing. ●



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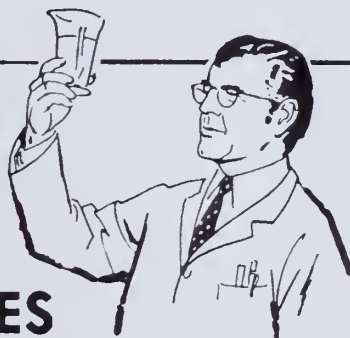
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## **FAMILY PRACTICE RESIDENCIES: A PROGRESS REPORT**

**G. GAYLE STEPHENS, M.D.,  
DEAN, SCHOOL OF PRIMARY MEDICAL  
CARE, HUNTSVILLE**

In September of 1974, the School of Primary Medical Care of The University of Alabama in Huntsville published a Family Practice Residency Feasibility Study for the State of Alabama. At that time, approved family practice residencies had been functional in Huntsville and Tuscaloosa for less than a year. Prepared by Dr. James H. Campbell of the SPMC faculty and administrative staff and myself under a grant from the Alabama Regional Medical Education Program, the Study documented the need for additional family physicians in Alabama and identified nine communities with the requisite hospital facilities, medical staff, and level of interest to provide educational support for family practice residency programs.

Among the nine communities identified in the Feasibility Study as having "the characteristics technically necessary to justify their being considered as potential locations for a Family Practice Residency Program," Anniston had already applied in 1974 for approval of a family practice residency to be affiliated with the University of Alabama System Medical Education Program. Birmingham and Mobile were the only two among the nine having a four year school of medicine and a population large enough to make more than one family practice residency feasible. The other communities were Decatur, Dothan, Florence/Sheffield, Gadsden, Montgomery, and Selma.

In 1975 the Alabama legislature appropriated \$1,350,000 to support the development of family practice residencies in the State in addition to the existing approved residencies in Huntsville and Tuscaloosa. The money was made available through the State's two medical schools in Birmingham and Mobile and was specified to be used in certain sites, some of which were among those identified in the 1974 ARMP-sponsored Feasibility Study.

Largely as a result of this commitment by the Legislature there are now (December, 1976) seven approved family practice residencies in the State and three more are in varying stages of development (Table 1). If and when the three programs making application to the Residency Review Committee for Family Practice of the AMA are approved, a total of 189-195 family practice residents distributed among eight communities in north, central, and south Alabama will be authorized to be in training at any one time. All but one of the ten approved and developing family practice residencies in the State—Carraway Methodist Medical Center in Birmingham—are directly and actively associated with either the University of Alabama System Medical Education Program (UASMEP) or the University of South Alabama at Mobile.

A year after publication of the ARMP Feasibility Study, the Family Practice Programs Committee of UASMEP was appointed by Dr. James Pittman, Executive Dean, University of Alabama System Medical Education Program, to advise him on the developing undergraduate and graduate family practice programs for which the components of UASMEP have responsibility. Initially the Committee consisted only of Chairmen of Departments of Family Medicine at the three campuses with myself as Chairman of UASMEP Family Medicine. At the first meeting (November, 1975) the Committee recommended that the membership be expanded to include the directors of Family Practice Residency Programs that are affiliated with a UASMEP campus and are accredited by the LCGME. Early in 1976, the Committee recommended the addition of a member of the Alabama Chapter of the American Academy of Family Physicians. In addition to C. Rush McInnis, M.D., representing the AAFP, the current members of the UASMEP Family Practice Programs Committee are Robert G. Sherrill, Jr., M.D. (UAB), F. Douglas Scutchfield, M.D. (CCHS/UA), and Herbert T. Smith, M.D. (SPMC/UAH), the Chairmen of Family Medicine at the three UASMEP campuses; Charles T. Moss, Jr., M.D. (Huntsville), William F. deShazo, M.D. (Tuscaloosa), Roger I. Lienke, M.D. (Anniston), John Maloof, M.D. (East End/Birmingham), and Donald C. Overstreet, M.D. (Selma), the Directors of the UASMEP-affiliated family practice residencies; and myself as Chairman. William E. Lotterhos, M.D., was appointed in April, 1976, to develop a family practice residency in Montgomery and is working with local hospitals and physicians to that end. President of the American Academy of General Practice from 1970 to 1971 and recently Chairman of the Department of Family Practice at the Medical College of Georgia, Dr. Lotterhos is actively working with the UASMEP Family Practice Programs Committee.

To facilitate the exchange of information the Committee rotates its meetings among the three campuses of UASMEP on a monthly basis. The purpose of the Committee is best met by inviting to every meeting other persons involved with the establishment and operation of family practice residency programs throughout the state, including the program in Mobile. From among those close working associates and its own members, the Family Practice Programs Committee has recently formed sub-committees which will issue reports on the following topics to the full committee at specified monthly meetings during 1977: Comparison of Curricula, Criteria for Faculty Appointments, Affiliation Agreements, Coordination of Continuing Education, Family Practice Clubs, Coordination of Clinical Records, and Undergraduate Medical Student Preceptorships.

The range of topics to be studied by the sub-committees indicates the breadth and depth of activity in the state's established and developing family practice residency programs; yet much remains to be done that cannot be accomplished by the committee and the residency programs alone. The approved programs have a total of forty-three (43) first-year positions available and the developing programs when approved will add twenty to twenty-two. While this is a major development within a 3 1/2 year period it

CONTINUED ON PAGE 60



# ACCREDITED AND DEVELOPING FAMILY PRACTICE RESIDENCY PROGRAMS IN ALABAMA - DECEMBER, 1976

Program	Location	University Affiliation	Hospital Affiliation	Residents		Director
				Authorized or Planned	Enrolled	
UAH/Huntsville Hospital	Huntsville	UASMEP	Huntsville Hospital	36	26	Charles T. Moss, Jr., M. D.
University of Alabama, University	Tuscaloosa	UASMEP	Druid City Hospital	36	28	William F. deShazo, III, M.D.
Northeast Alabama Regional Medical Center	Anniston	UASMEP (SPMC/UAH)	Northeast Alabama Regional Medical Center	12	3	Roger I. Lienke, M.D.
Carraway Methodist Medical Center	Birmingham	None	Carraway	12	0	James E. Lee, M.D.
East End Memorial Hospital	Birmingham	UASMEP (UAB)	East End; Hillcrest Hospital	9	0	John A. Maloof, M.D.
University of South Alabama College of Medicine	Mobile	University of South Alabama	University of South Alabama Medical Center	12	0	H. C. Mullins, M.D.
Selma-Dallas County	Selma	UASMEP (CCHS/UA)	Medical Center Hospital, Vaughan Memorial Hospital	12	0	Donald C. Overstreet, M.D.
University of Alabama at Birmingham	Birmingham	UASMEP	Cooper Green Hospital	36	0	Ralph Tharp, M.D.
Montgomery	Montgomery	UASMEP (UAB)	*	12-18	0	William E. Lotterhos, M.D.
Gadsden/Baptist Memorial Hospital	Gadsden	UASMEP	Baptist Memorial Hospital	12 189-195	0 57	Arnold C. Williams, M.D.

\*Hospital Affiliation: Negotiations are being conducted with the following institutions:  
Baptist Medical Center, Jackson Hospital and Clinic, St. Margaret's Hospital; Fairview Medical Center, Greil Psychiatric Hospital; Lister Hill Health Clinic.

## ACCREDITED PROGRAMS

## PROGRAMS PREPARING APPLICATIONS

# CME CALENDAR

## MARCH

● March 2-4, 30th Annual Symposium on Fundamental Cancer Research, Shamrock Hilton, Houston.

● March 7-9, Clinical Hematology, Birmingham. Sponsors: Am. College of Phys. (ACP) and Univ. of Ala. School of Medicine. Category I credit available (19 1/4 hrs.)

● March 9-11, "Second Annual Suncoast Trauma Seminar," University of South Florida College of Medicine, Tampa, Florida. Limited registration. Contact: Dr. Roger T. Sherman, Dept. of Surgery, Univ. of South Florida College of Medicine, Box 16, 12901 North 30th St., Tampa 3612.

● March 14-17, Physiological Basis of Disease, Dallas Texas. Sponsors: ACP and Univ. of Texas Southwestern Medical School. Category I credit available (28 hrs.)

● March 18-20, "Emergency Medicine: Clinical-Radiological Correlation," Pointe West Resort, Phoenix, Arizona. Contact: Austin Sandroek, M.D., Dept. of Radiology, Maricopa County General Hospital, 2601 East Roosevelt, Phoenix 85008.

● March 26-27, "Workshop in Pediatric Radiology," Marriott Hotel, New Orleans, La. Sponsored by Institute For Pediatric Radiology.

● March 30-April 1, "30th National Conference On Rural Health," Washington Plaza, Seattle, Washington. Sponsored by AMA.

## APRIL

● April 3-7, 45th Annual Assembly of the Southeastern Surgical Congress, Miami Beach, Fla. Category 1 credit available.

● April 14-16, MASA's Annual Meeting, Mobile.

## JUNE

● June 8-10, Common Pediatric Problems, Children's Hospital National Medical Center, Wash., D. C. Contact: Mrs. Susan Weiss, 13407 Brackley Terrace, Silver Spring, Md. 20904.

● June 9-11, Wangenstein Surgical Symposium, Univ. of Kentucky Medical Center, Lexington, Kentucky. Contact: Frank R. Lemon, M.D., Continuing Education, Univ. of Kentucky, Lexington, Ky. 40506.

## AUGUST

● August 18-21, Medical Problem Management, Joe Wheeler State Park, Rogersville. Contact: Mrs. Carol C. Malone, Continuing Education, School of Primary Medical Care, 201 Governors Drive, Huntsville 35801.

## SEPTEMBER

● September 7-9, Am. Cancer Society, Second National Conference On Human Values & Cancer, The Palmer House, Chicago, Illinois.

● September 9-11, Pediatric Symposium, Lake Guntersville State Park, Guntersville. Contact: Mrs. Carol C. Malone, Continuing Education, School of Primary Medical Care, 201 Governors Drive, Huntsville 35801.

● September 11-16, Second Annual Family Practice Review Conference, Sheraton University Inn, Tuscaloosa. Sponsor: Univ. of Alabama College of Community Health Sciences. Contact: Mr. Lindsey Davis, College of Community Health Sciences, Tuscaloosa, phone (205) 348-7942.

## OCTOBER

● October 17-23, The American Society of Clinical Hypnosis Annual Workshop and Scientific Meeting, Omni International Hotel, Atlanta, Georgia, October 17-23, 1977. Contact: William F. Hoffman, Jr., Executive Director, Suite 218, 2400 East Devon Avenue, Des Plaines, Illinois 60018.

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**Indications.** For the treatment of ascariasis (roundworm infection) and enterobiasis (pinworm infection).

**Warnings.** *Usage in Pregnancy:* Reproduction studies have been performed in animals and there was no evidence of propensity for harm to the fetus. The relevance to the human is not known.

There is no experience in pregnant women who have received this drug.

The drug has not been extensively studied in children under two years; therefore, in the treatment of children under the age of two years, the relative benefit/risk should be considered.

**Precautions.** Minor transient elevations of SGOT have occurred in a small percentage of patients. Therefore, this drug should be used with caution in patients with preexisting liver dysfunction.

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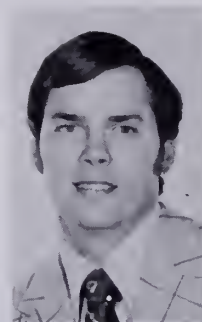
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**RICHARDS, ALAN BROOKS, M.D.**, University of Texas Health Science Center (Dallas), 1975. Reciprocity with Texas. Location: Birmingham.



**BARLOW, CARL WAYNE, M.D.**, LSU School of Medicine, 1974. Reciprocity with Louisiana (FLEX). Location: Dothan.



**DANGLE, HARLAND CLARENCE, M.D.**, Marquette University School of Medicine, 1944. Reciprocity with Wisconsin. Specialty: Pathology. Location: Birmingham.



**SAULS, LAURA MAVIS JUSTICE, M.D.**, University of Mississippi School of Medicine, 1973. Reciprocity with Mississippi (FLEX). Specialty: Radiology. Location: Mobile.



**BEDSOLE, GLENN DAVID, M.D.**, University of Alabama School of Medicine, 1974. Reciprocity with National Board of Medical Examiners. Location: Birmingham.



**FERGUSON, EDWARD CHARLES, M.D.**, Marquette University School of Medicine, 1951. Reciprocity with Wisconsin. Specialty: General Surgery. Location: Birmingham.



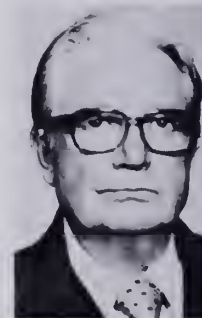
**SCHNEIDER, MYRON PHILLIP, M.D.**, LSU School of Medicine, 1972. Reciprocity with Louisiana (FLEX). Specialty: Pediatrics.



**BESSEY, PALMER QUINTARD, M.D.**, University of Vermont College of Medicine, 1975. Reciprocity with National Board of Medical Examiners. Location: Birmingham.



**POLLOCK, WILLIAM JAMES, M.D.**, University of Alabama School of Medicine, 1974. Reciprocity with National Board of Medical Examiners. Location: Birmingham.



**SPEAKER, OTHER FRANKLIN, M.D.**, Loma Linda University School of Medicine, 1939. Reciprocity with National Board of Medical Examiners. Specialty: Ophthalmology. Location: Pell City.



**BUTLER, CAROLYN ELIZABETH, M.D.**, University of Alabama School of Medicine, 1974. Reciprocity with National Board of Medical Examiners.



**PUJARA, SUBHASH SOMABHAI, M.D.**, B. J. Medical College (Ahmedabad, India), 1969. Reciprocity with Maine (FLEX). Specialty: Radiology. Location: Birmingham.



**ZIMMERMANN, GEORGE JAY, M.D.**, Washington University School of Medicine, 1971. Reciprocity with Missouri. Specialty: General Surgery. Location: Huntsville.



## Digest of actions—State Committee of Public Health

*The State Committee of Public Health, at its meeting on January 19, 1977, took the following actions:*

- Revoked license of Medical Service Laboratory, Florence, and stayed the revocation 120 days pending compliance.
- Confirmed a Deputy Registrar for Jefferson County.
- Was advised of a reduction in funding for the State Health Planning and Development Agency by approximately 15% for Federal FY 1978 to \$239,776.
- Tabled a request for appointment to the 1122 Project Review Committee pending legislative consideration of Certificate of Need bill and reconfirmed support for staff review provisions for a hearing during the review process.
- Approved initial issuance of Assurance of Need for 17 facilities and extended the Assurance of Need for Enterprise Nursing Home for a balance of beds previously requested.
- Concurred in the action of the Project Review Committee denying a Certificate of Need to Fairhaven Nursing Home, Birmingham, as inconsistent with the Alabama Master Hospital Plan.
- Was advised regarding an informed consent requirement for polio immunization.
- Was advised regarding the influenza vaccine moratorium and expressed appreciation to the Executive Director of The Medical Association of the State of Alabama, Lon Connor, for his assistance in publicizing information to physicians relative to the moratorium.
- Received new recommendations regarding the measles immunization from the American Academy of Pediatrics which recommends beginning immunizations at 15 months of age routinely instead of 12 months of age.
- Was advised that resistant strains of gonorrhea have not yet been identified in Alabama, but have already been noted in 22 states. New treatment measures and retesting for possible failures will be published to the profession.
- Approved a Medicaid Plan change that updates the citation with no change in text.
- Was advised regarding the request from nursing homes for an increase in rates due to the Federal minimum wage rate increases which affects their expenses.
- Received information for study on a possible fee schedule for professional providers, including physicians.
- Was advised that an austere budget request of \$50.6 million in State funds had been requested for FY1978.
- Was advised that scheduled cuts in services approved by the Board earlier and delayed until March 1, will probably include the necessity for terminating services to ICF facilities and the entire drug program in addition to these cuts in order for the Medicaid Program to remain within funds appropriated for Medicaid for the current year.
- Was advised of an order issued to the Acmar Water System requiring compliance with certain safety provisions within 14 days of January 14, 1977.

- Received for review and comment proposed Primary Drinking Water Regulations which were subject to public hearing on November 16, 1976.
- Was advised that the Ethics Commission had ruled that County Boards of Health and members of the Statewide Health Coordinating Council were not required to file.
- Approved sponsorship of the National High Blood Pressure month in Alabama for May. ●

### DR. RUSSELL McWHORTER CUNNINGHAM: ALABAMA'S FIRST LT. GOVERNOR

The first Lieutenant Governor of Alabama was a physician—Russell McWhorter Cunningham of Lawrence County. He practiced medicine at Newburg in Franklin County for two years before he was elected to the State Legislature.

A short time later Dr. Cunningham was appointed physician for the State Prison System at a time when health conditions in the prisons were deplorable. (Sound familiar?) In three years he had reduced the prison death rate from 18% to 2.8%.

Dr. Cunningham moved to Birmingham in 1885 and established a private hospital at Ensley. During the next ten years he served as President of the Tri-States Medical Association (Alabama, Tennessee and Georgia), as President of The Medical Association of The State of Alabama (1895) and then as a member of the Board of Censors. He also served as President of the Jefferson County Medical Society (1896).

He was elected to the State Senate from Jefferson County and was named its President in 1898. He was a delegate to the 1901 Constitutional Convention, when the office of Lieutenant Governor was created. The next year he was elected the first Lieutenant Governor in Alabama history.

In 1903 a bill was introduced in the Legislature which would have taken from the hands of physicians the power of this Association, through its own Board of Censors, to judge the qualifications of all who desired to practice any form of medicine in the State. This bill was defeated by one vote. Dr. Cunningham, as presiding officer of the Senate, cast that vote.

When Gov. William D. Jelks was stricken with tuberculosis, Dr. Cunningham became the acting Governor of Alabama, serving in this office for a little more than a year.

He was a candidate for a full term in the election of 1906, being defeated by Braxton Bragg Comer in one of the most spectacular campaigns in the State's history.

Dr. Cunningham returned to the practice of medicine in Jefferson County where he served as health officer for the next ten years. He died in 1921 at the age of 66. ●

does not approach the goal of 115 first-year positions as recommended in the Health Manpower Study performed by the CHP "A" Agency at the request of the State Committee on Public Health—a report that has been accepted by that group and approved at least in principle also by the Alabama Academy of Family Physicians.

As of December, 1976, fifty-seven residents are in various stages of training as indicated below:

Program	1st Year	2nd Year	3rd Year	Total
Huntsville	12	9	5	26
Tuscaloosa	12	15	1	28
		(12 Jan. 1977 4)		
Anniston	2	1		3

Several residents have already completed all or part of their training and are now in practice. From the Tuscaloosa program, one resident has gone into practice in Fairhope and two are in practice in Texas. As of January, 1977, five residents from the Huntsville program are in practice in Alabama (three in Huntsville, one in Guntersville, and one in Madison) and three are in practice in Tennessee (two in Oak Ridge and one in Fayetteville).

By any standards these are major achievements; however, a great deal of hard work remains. The existing programs must be improved, those without residents must recruit, and the developing programs must become accredited. None of this can continue without the continued support from the State and from the physicians and hospitals in the various communities.

Quite clearly recruiting medical students to enter these residencies is a major problem. The State's two medical schools should furnish most of the residents but this will not happen automatically. The faculties at UAB and Mobile must actively encourage residents to enter family practice (certainly they should not discourage them) and the medical student programs at Huntsville and Tuscaloosa must become fully operational as soon as possible, i.e., have 25 students per class for each of the junior and senior years.

Strong efforts are necessary to recruit residents who complete the Alabama programs to practice in areas of need within the State. Program Directors and Deans do not control where their graduates choose to practice. There need to be closer working relations between organized medicine and the programs to make practice opportunities known and to allow for appropriate recruiting efforts.

There is a definite trend nationally for Family Practice residents to practice in partnerships or small groups. By and large they are not electing solo practice and they are not joining multi-specialty groups in significant numbers. There is a lesson here for recruiting. Physicians already in practice who want more family physicians in their communities would do well to consider forming partnerships and small groups. This has not been the usual style of practice among Family Physicians but it clearly is more effective in recruiting than offering the usual inducements.

The challenge is before us. The educational institutions and hospitals in the State are demonstrating their capability of producing family physicians. The practicing physicians must develop proper relationships among themselves and with the educational programs to capture the graduates for

the state. Physicians are the key to recruiting other physicians. Neither Chambers of Commerce, hospitals, civic clubs nor volunteer recruiting organizations can compare in effectiveness with interested enthusiastic physicians who are willing to exercise leadership. It has been stated cynically that physicians often discourage other physicians from coming to their communities to practice. I do not believe that active discouragement is often the case, but I do feel that the lack of an enthusiastic welcome and the lack of attention to the professional climate in a community are definitely negative in their impact on recruiting. The new physicians want professional colleagues who are open to new ideas and who will make changes to accommodate to some of the things the residents will have learned in their training. Group practice; problem oriented records; new uses of nurses and assistants; increased utilization of co-professionals such as social workers, psychologists, nutritionists, and pharmacists; increased emphasis on patient education and counseling—these are some of the new ideas and skills the new graduates will want to incorporate into their practice. It is unlikely that they will be attracted to a setting where these things are not valued.

We have an unprecedented opportunity to provide adequate numbers of family physicians for Alabama. Let's not lose our will to finish the task so well begun. ●





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**Usage in Pregnancy:** See "Contraindications."

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## Auxiliary

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## FOR BETTER OR FOR WORSE

*"Do you love me?  
Do you not?  
You told me once  
But I forgot."*

In this Valentine month, we partners in a medical marriage also say "I love you." Recently, seminars on "Stress in Medical Marriages" were held in Chicago by the AMA Auxiliary and in Philadelphia by the AMA. This causes us to wonder if there is reason for unusual stress in medical marriages.

Surely, today, marriage is in trouble. The trend is to live together without benefit of clergy. Divorce is easily accessible. In colonial times, there was one divorce in every 500 marriages. Today there is one divorce for every 2.4 marriages, with a predicted rate of 50% by 1985. The vow in the marriage ceremony becomes "as long as we both shall agree" rather than "til death do us part." Marriage becomes a part of our "disposable culture."

Every person married to a physician must face the fact that his or her partner has a mistress — a demanding one — medicine. She is glamorous, seductive, harder to compete with than any mortal. The physician has made a commitment to her which supersedes mate and family. A mate who does not come to terms with this fact makes herself or himself miserable as well as all those around.

A physician's mate is often very much alone. It's easy to feel sorry for ourselves as we rear our children, celebrate special occasions and make important decisions without our physician until we look at the mates of the airline pilots, long distance truck drivers, and traveling salesmen. We learn to be self-reliant and accept this as a part of life. We learn to guard jealously the precious moments we have together.

We must grow along with our physician mate. The idea of continuing education is a reality for those in medicine. Some of us mates have been so busy making babies and baking brownies that we fail to keep up with the outside world. We suddenly find ourselves with no more stimulating conversation than nursery rhymes and recipes. "To be forewarned is to be forearmed." There are many ways to prevent this from happening. Every community has resources for self-enrichment. Community schools and the Y offer courses. Trade schools and Jr. colleges provide us with new interests. Community theater and art groups provide avenues for talents. As an admittedly prejudiced person, I will have to say that Medical Auxiliary gives the physician's mate an ideal means of learning about the medical profession, issues and legislation so important to her or his

way of life. The auxiliary also offers the privilege of doing for others and a means of serving the health needs of the community.

The medical community is sensitive to personal problems and marital difficulties. I was told that it was impossible to form an auxiliary in one county because of two recent divorces. Hospital staffs are divided by an internal affair. A physician finds his patients unsympathetic to what they consider unfair treatment of wife and children. In some cases, a physician must even leave his town and practice because of marital problems.

Some of us resent our fleeting youth and grasp at anything or anyone who makes us feel young. Yet anyone who still expects to grow is young. Even old marriages can be revitalized. A good relationship takes effort and working at. Set aside a few days and go away together—away from the telephone and the pressures of daily events. Share your thoughts. Try to understand where each of you is in life, where you want to be and where you think you are going. Renew those vows—"to love and to cherish—for better or for worse, til death us do part."

Let us rejoice that we are partners in the oldest God-ordained institution.

A stylized, handwritten signature in dark ink, appearing to read "Pat Scofield".

Pat Scofield

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# MEDICAL HOTLINE



With an air of "deja vu" about it, news comes that attorneys in Texas are now investigating the possibility of starting their own malpractice insurance firm. Reason: premiums for Texas lawyers have risen more than 150% recently, a rise they claim to be unjustified. The scenario sounds all too familiar!

The federal Drug Enforcement Agency has listed the 24 drugs most often stolen from pharmacies. They are: Amytal, Benzedrine, Darvon, Demerol, Desoxyn, Dexamyl, Dexedrine, Dilaudid, Emperin with codeine, Eskatrol, Fiorinal with codeine, Librium, Morphine, Miltown, Nembutal, Obetrol, Percodan, Placidyl, Preludin, Quaalude, Ritalin, Seconal, Tuinal, and Valium.

NHI gets the support of only 36% of the public if it is to be financed by increased taxes, according to an NBC-TV poll. Forty-eight percent would absolutely oppose it; sixteen percent were unsure.

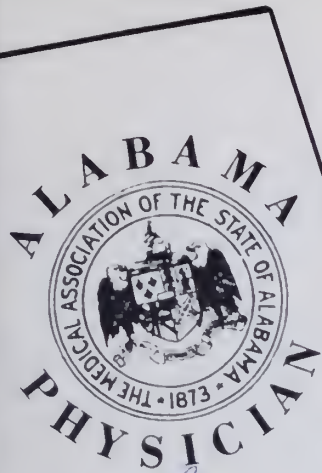
Look for the Alabama Legislature to be forced to come to some decisions very shortly concerning "emergency funding" requests to keep the State Medicaid program afloat. In lieu of additional monies, severe reductions in services lay in wait! Is "earmarking" state funds each year the answer to preventing disasters such as this?

Has anyone seen or read any final report and/or recommendations from that "blue chip" legislative subcommittee looking into Medicaid fraud and abuse here in Alabama?

Intimate details about a patient's health—to doctors, nurses, and clinic or hospital clerks—are still very much open to inspection in many states (including Alabama). Confidentiality laws to protect medical records are urgently needed. As it stands now, candor could possibly hurt a patient's career or personal financial situation.

For the "training on the job" advocates, MASA is looking into the possibility of providing to county societies (on a loan-free basis) cassette tapes to instruct medical assistants in the important office function called "collections."





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Of The State Of Alabama

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## Alabama House Health Committee



# A character all its own.



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**Contraindicated:** Known hypersensitivity to the drug. Children under 6 months of age. Acute narrow angle glaucoma; may be used in patients with open angle glaucoma who are receiving appropriate therapy.

**Warnings:** Not of value in psychotic patients. Caution against hazardous occupations requiring complete mental alertness. When used adjunctively in convulsive disorders, possibility of increase in frequency and/or severity of grand mal seizures may require increased dosage of standard anticonvulsant medication; abrupt withdrawal may be associated with temporary increase in frequency and/or severity of seizures. Advise against simultaneous ingestion of alcohol and other CNS depressants. Withdrawal symptoms (similar to those with barbiturates and alcohol) have occurred following abrupt discontinuance (convulsions, tremor, abdominal and muscle cramps, vomiting and sweating). Keep addiction-prone individuals under careful surveillance because of their predisposition to habituation and dependence.

**Usage in Pregnancy:** Use of minor tranquilizers during first trimester should almost always be avoided because of increased risk of congenital malformations as suggested in several studies. Consider possibility of pregnancy when instituting therapy; advise patients to discuss therapy if they intend to or do become pregnant.

**Precautions:** If combined with other psychotropics or anticonvulsants, consider carefully pharmacology of agents employed; drugs such as phenothiazines, narcotics, barbiturates, MAO inhibitors and other antidepressants may potentiate its action. Usual precautions indicated in patients severely depressed, or with latent depression, or with suicidal tendencies. Observe usual precautions in impaired renal or hepatic function. Limit dosage to smallest effective amount in elderly and debilitated to preclude ataxia or oversedation.

**Side Effects:** Drowsiness, confusion, diplopia, hypotension, changes in libido, nausea, fatigue, depression, dysarthria, jaundice, skin rash, ataxia, constipation, headache, incontinence, changes in salivation, slurred speech, tremor, vertigo, urinary retention, blurred vision. Paradoxical reactions such as acute hyperexcited states, anxiety, hallucinations, increased muscle spasticity, insomnia, rage, sleep disturbances, stimulation have been reported; should these occur, discontinue drug. Isolated reports of neutropenia, jaundice; periodic blood counts and liver function tests advisable during long-term therapy.



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# 19 VIEWS



The position of Continuing Medical Education Director has been filled after being vacant for six months. Following a period of extensive screening and interviewing, George D. Oetting, Ph.D., has been selected to this important post.

Formally a college professor at the University of Illinois, Oetting has retired from the U.S. Air Force as a Lieutenant Colonel, during which time he served in various capacities as a lecturer, instructor, administrative officer, and director of education evaluation and analysis.

George Oetting brings with him a wealth of experience on which to develop a viable CME program that should enable MASA to provide the leadership and direction so necessary in this field.

His experience and unquestioned expertise, coupled with his dedication to education and his amiable personality, will provide MASA with a new dimension in service delivery to its membership. Oetting will assume his duties on February 21, 1977. Welcome aboard!

The 116th Annual Session of The Medical Association of The State of Alabama will be held April 14-16, 1977, at the Municipal Auditorium, Mobile, Alabama.

Program events include the following:

#### **Thursday, April 14, 1977 —**

Orientation Program, 9:00 A.M. — 12:00 Noon  
Reference Committee Meetings, 2:00 P.M. — 5:00 P.M.

#### **Friday, April 15, 1977 —**

General Scientific Session, 9:00 A.M. — 11:45 A.M.  
Session on Medicine, 2:00 P.M. — 5:00 P.M.  
Session on Pediatrics, 2:00 P.M. — 5:00 P.M.  
Session on Surgery, 2:00 P.M. — 5:00 P.M.

#### **Saturday, April 16, 1977 —**

Annual Business Meeting, 9:00 A.M. — 12:00 Noon

#### **Other Events are:**

Thursday, April 14, 7:30 P.M. — Seafood Buffet and Entertainment by the Royal Street Seven, Municipal Auditorium.

Friday, April 15, 7:30 A.M. — President's Prayer Breakfast, Sheraton Inn.

Friday, April 15, 12:30 P.M. — ALAPAC Luncheon, Helenic Community Center.

Friday, April 15, 7:30 P.M. — Annual Awards Dinner, Sheraton Inn.

## INFORMATION FOR AUTHORS CONCERNING MANUSCRIPTS

Manuscripts should be typewritten, double spaced on white paper 8½ x 11 inches with adequate margins. The original copy, not the carbon copy, should be submitted. Authority for approval of all contributions rests with the Editor. **The Journal of The Medical Association of The State of Alabama** reserves the right to edit any material submitted. The publishers accept no responsibility for opinions expressed by contributors.

### Style

The first page should list title, the author (or authors), degrees, and any institutional or other credits. Bibliographies must contain in the order given: Name of author, title of article, name of periodicals with volume, page, month — day of month if weekly — and year. Number should be limited to absolute minimum. References should be numbered consecutively in order in which they appear in the text.

### Length Of Articles

Articles should not exceed 3,000 words (approximately 3-4 printed pages). Under exceptional circumstances only will articles of more than 4,000 words be published.

### Illustrations

Illustrations should be numbered consecutively and indicated in the text. The number, indication of the top, and the author's name should be attached to the back of each illustration. Legend should be typed, numbered, and attached to each illustration. Photographs should be clear and distinct; drawings should be made in black ink (preferably India ink) on white paper. For half tones, glossy photographs should be submitted.

### Reprints

Reprint orders should be returned at once. Prices for reprints, based on numbers of pages, will be furnished upon request.

Communications should be addressed to **The Journal of The Medical Association of The State of Alabama**, P. O. Box 1900-C, Montgomery, Alabama 36104. Telephone: 263-6441, Area Code 205. ●

### ABOUT THE COVER

Health Department photographer, Leon Johnson, snapped this month's front cover from his crow's nest position overlooking the Alabama House Chamber while members of the House Health Committee considered proposed health legislation. Two faces quickly identifiable as captured by the camera (surely accidentally?) are (seated, far left) Robert Finley, Chairman of Legislative Affairs, Alabama Dept. of Public Health, and (seated and leaning forward, far right) Richard Whitaker, Governmental Affairs Director, MASA. ●



# AMA Expands Continuing Medical Education Opportunities in 1977.



## Now you can choose from 15 regional CME meetings!

Recognizing the importance of continuing medical education to its members, the AMA has greatly expanded its CME programs. During 1977, the AMA will offer 15 regional CME meetings around the country in addition to its scientific programs at both the Annual Convention and Winter Meeting.

The purpose of the regional programs is to make it easier and more convenient for you to continue your medical education by bringing the meetings closer to your hometown and by scheduling them on the weekends to

avoid interference with your practice.

All courses are approved by the AMA Council on Continuing Physician Education for Category 1 credit toward an AMA Physician's Recognition Award. A syllabi written by medical school faculties is provided with every course.

Specific information on course location, fees, academic program, faculty, and hotel reservations will be available approximately 2 months before each course date. Please write to address below at that time stating your selection(s). Print name, address, and office phone number.

### 1977 Regional Schedule

Tulsa, Oklahoma	January 22-23
Birmingham, Alabama	February 5-6
*Lake Tahoe, Nevada	February 11-13
Denver, Colorado	February 19-20
*Tarpon Springs, Florida	March 4-6
Detroit (Southfield), Michigan	March 26-27
New York (Westchester), New York	April 16-17
Houston, Texas	May 15
Hartford, Connecticut	September 10-11
*Lake of the Ozarks, Missouri	September 16-18
Chicago, Illinois	September 24-25
*Hot Springs (Homestead), Virginia	Sept. 30-Oct. 2
*Huron, Ohio	October 7-9

*Honolulu, Hawaii	Oct. 30-Nov. 4
Hershey, Pennsylvania	November 18-19

### AMA's 126th Annual Convention

San Francisco, California	June 18-22
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### AMA's Winter Scientific Meeting

Miami Beach, Florida	December 10-13
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### AMA Spokesmanship Seminars

Chicago, Illinois	August 13-14
(Marriott O'Hare Hotel)	November 12-13

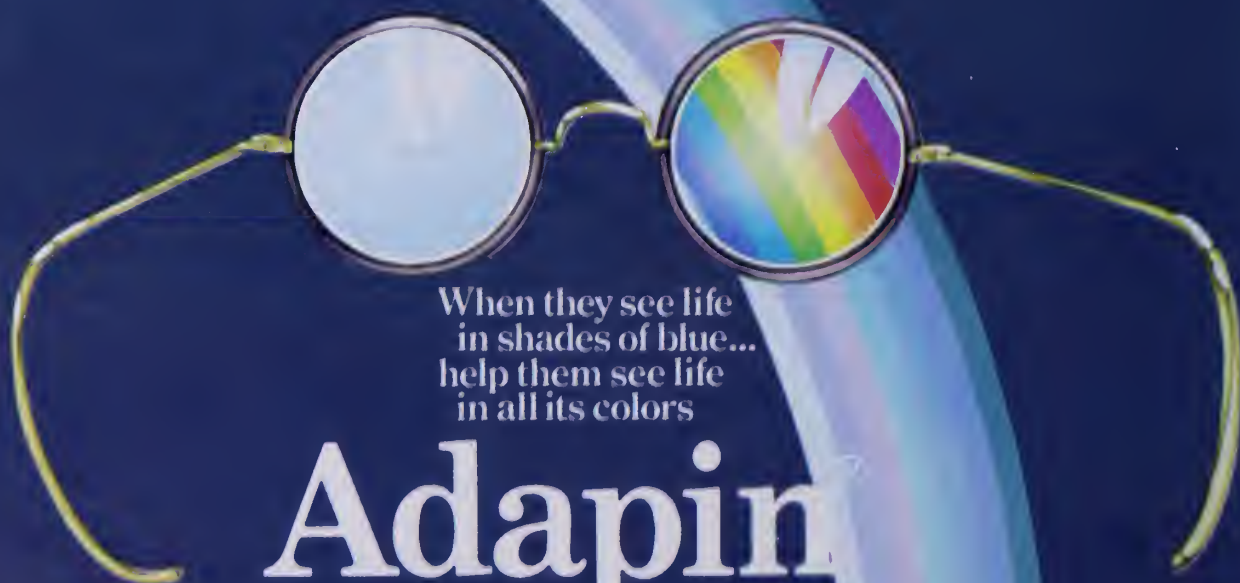
\*Courses end at midday for recreation activities

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Chicago, Illinois 60610

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shades of blue



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that often accompanies  
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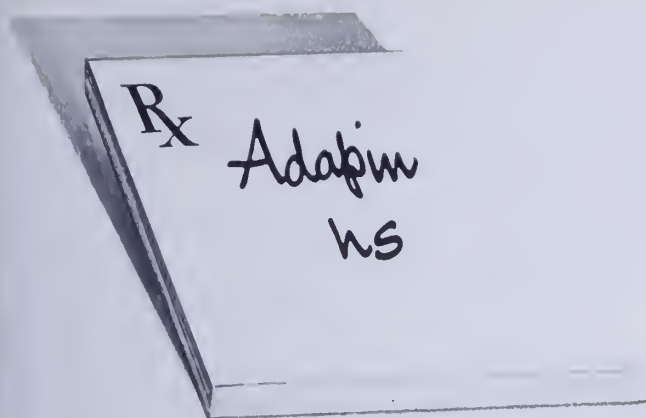


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in all its colors

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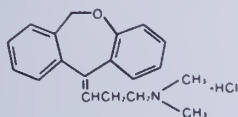
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### DESCRIPTION

**Adapin (doxepin HCl)** is an isomeric mixture of N, N-dimethyl-dibenz(b,e) oxepin- $\Delta^{11}(6H)$ ,  $\gamma$  propylamine hydrochloride.



### ACTIONS

**Adapin** has a variety of pharmacological actions with its predominant action on the central nervous system. While its mechanism of action is not known, studies have demonstrated that it is neither a monoamine oxidase inhibitor nor a primary stimulant of the central nervous system.

### INDICATIONS

In controlled clinical evaluations, **Adapin** has shown marked antianxiety and significant antidepressant effects. **Adapin** has been found to be well tolerated even in elderly patients.

**Adapin** is indicated for the treatment of patients with:

1. Psychoneurotic anxiety and/or depressive reactions.
2. Mixed symptoms of anxiety and depression.
3. Anxiety and/or depression associated with alcoholism.
4. Anxiety associated with organic disease.
5. Psychotic depressive disorders including involutional depression and manic-depressive reactions.

Target symptoms of psychoneurosis that respond particularly well to **Adapin** include: anxiety, tension, depression, somatic symptoms and concerns, insomnia, guilt, lack of energy, fear, apprehension and worry.

Because **Adapin** provides antidepressant as well as antianxiety effects, it is of particular value in patients in whom anxiety masks depression. Patients who have not responded to other antianxiety or antidepressant drugs may benefit from **Adapin**.

In a large series of patients systematically observed for withdrawal symptoms, none were reported—a finding which is consistent with the virtual absence of euphoria as a side effect and the lack of addictive potential characteristic of this type of chemical compound.

### CONTRAINDICATIONS

Because **Adapin** has an anticholinergic effect, it is contraindicated in patients with glaucoma or a tendency toward urinary retention.

Use of **Adapin** is contraindicated in patients who have been found hypersensitive to it.

### WARNINGS

**Usage in Pregnancy**—**Adapin** has not been evaluated in pregnant patients. Therefore, it should not be used during pregnancy unless, in the judgment of the physician, it is essential to the welfare of the patient.

In animal reproduction studies of **Adapin (doxepin hydrochloride)**, gross and microscopic examination of the offspring gave no evidence of drug-related teratogenic effect. Following doses of up to 25 mg./kg./day for 8 to 9 months, no changes were observed in the number of live births, litter size, or lactation. A decreased rate of conception was observed when male rats were given 25 mg./kg./day for prolonged periods—an effect which has occurred with other psychotropic drugs and has been attributed to drug effect on the central and/or autonomic nervous systems.

**Usage in Children**—The use of **Adapin** in children under 12 years of age is not recommended, because safe conditions for its use have not been established.

**MAO Inhibitors**—Serious side effects and even death have been reported following the concomitant use of certain drugs with MAO inhibitors. Therefore, MAO inhibitors should be discontinued at least two weeks prior to the cautious initiation of therapy with **Adapin**. The exact length of time may vary and is dependent upon the particular MAO inhibitor being used, the length of time it has been administered, and the dosage involved.

### PRECAUTIONS

Drowsiness may occur with **Adapin**; therefore, patients should be warned of its possible occurrence and cautioned against driving a motor vehicle or operating hazardous machinery while taking the drug.

Patients should also be cautioned that the effects of alcoholic beverages may be increased.

Since suicide is an inherent risk in depressed patients and remains a risk through the initial phases of improvement, depressed patients should be closely supervised.

Although **Adapin** has shown effective tranquilizing activity, the possibility of activating or unmasking latent psychotic symptoms should be kept in mind.

Compounds structurally related to **Adapin** can block the effects of guanethidine and similarly acting compounds. However, at the usual clinical dosages, 75 mg. to 150 mg. per day, **Adapin** has been given concomitantly with guanethidine without blocking its antihypertensive effect. But at dosages of 300 mg. per day or higher, **Adapin** has exerted a significant blocking effect.

**Adapin**, like other structurally related psychotropic drugs, potentiates norepinephrine response in animals. But this effect has not been observed with **Adapin** in humans, which is in accord with the low incidence of tachycardia reported clinically.

### ADVERSE REACTIONS

**Anticholinergic Effects:** Dry mouth, blurred vision and constipation have been reported. These are usually mild, and often subside as therapy is continued or dosage reduced.

**Central Nervous System Effects:** Drowsiness has been observed. It usually occurs early in the course of therapy and tends to subside as therapy continues. (See Dosage and Administration section.)

**Cardiovascular Effects:** Tachycardia and hypotension have been reported infrequently.

Other infrequently reported adverse effects include extrapyramidal symptoms, gastrointestinal reactions, secretory effects (such as increased sweating), weakness, dizziness, fatigue, weight gain, edema, paresthesias, flushing, chills, tinnitus, photophobia, decreased libido, rash, and pruritus.

### DOSAGE AND ADMINISTRATION

#### In most patients with mild to moderate anxiety and/or depression:

10 mg. to 25 mg. t.i.d. to start. A starting dosage of 10 mg. t.i.d. for a period of four days may reduce the initial drowsiness experienced by some patients, and may be tried in cases where drowsiness is clinically undesirable. Decrease or increase the dosage at appropriate intervals according to individual response. Usual optimum dosage is 75 mg. to 150 mg. per day.

In some patients with mild symptomatology or emotional symptoms accompanying organic disease, dosage as low as 25 mg. to 50 mg. per day has provided effective control.

**In more severe anxiety and/or depression:** 50 mg. t.i.d. may be required to start—if necessary, gradually increase to 300 mg. per day. Additional effectiveness is rarely obtained by exceeding 300 mg. per day.

Although optimal antidepressant response may not be evident for two to three weeks, antianxiety activity is rapidly apparent.

### OVERDOSAGE

**Symptoms**—An increase of any of the reported adverse reactions, primarily excessive sedation and anticholinergic effects such as blurred vision and dry mouth. Other effects may be: pronounced tachycardia, hypotension and extrapyramidal symptoms.

**Treatment**—Essentially symptomatic; supportive therapy in the case of hypotension and excessive sedation.

### HOW SUPPLIED

Each capsule contains doxepin, as the hydrochloride, 10 mg. (NDC 0018-0356), 25 mg. (NDC 0018-0357), and 50 mg. (NDC 0018-0358) capsules in bottles of 100 and 1000.



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**RECENT CHANGES**

**federal register**

**Providing  
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to Physicians**

**Informational  
Bulletin #433-76**

**National  
Health  
Insurance**

**special report**  
**Malpractice  
insurance:**

**drug  
bulletin**

**Health care doesn't  
need more red tape**

**Drug firms challenge  
'MAC' rules**

**Drug  
Substitution**

**The Committee on Administration  
of Health Programs  
RESEARCH**

**Mailgram**



# THERE ARE A LOT OF PEOPLE GETTING BETWEEN YOU AND YOUR PATIENT.

Medicine today is in the spotlight, subjected to all kinds of scrutiny. Your control over patient therapy is being monitored, judged and occasionally abrogated, sometimes by unknown third parties.

The worry is that in the wake of this focus, the relationship between you and your patient will be weakened, without offsetting benefits. Consider three examples:

**Drug substitution** In most states, pharmacy laws, regulations or professional custom stipulate that your non-generic prescriptions be filled with the precise products you prescribe. But in the last five years, a dozen or more State laws have been changed, permitting the pharmacist in most cases to select a product of the same generic drug to fill any prescription.

Ironically, this dilution of physician control has taken place against a background of growing evidence that purportedly equivalent drug products may be inequivalent, since neither present drug standards nor their enforcement are optimal. In fact, the FDA itself says it has not enforced the same standards for hundreds of "follow-on" products that it had applied to the original NDA approvals. Thus physician control over patient therapy is being eroded with a risk that patients may be exposed to drugs of uncertain quality.

The major advertised claim for substitution is reduced prescription prices for consumers. Yet no documentation of any significant savings has been produced.

**MAC** Maximum Allowable Cost, MAC for short, is a Federal regulation designed to cut the Government's drug bill by setting price ceilings for drugs dispensed to Medicare and Medicaid patients. Unless the prescriber certifies on the prescription that a particular product is medically necessary, the Government intends to pay only for the cost of the lowest-priced, purportedly equivalent,

generally-available product. The effect of the program may be that elderly and indigent patients will be restricted to products which someone in Washington believes are priced right. Practicing doctors will have little to say about administration of the program, since Government will have absolute authority to make its choices stick.

**The drug lag** The future of drug and device research depends upon a scientific and regulatory environment that encourages therapeutic innovations. The American pharmaceutical industry annually is spending more than \$1 billion of its own funds and evaluating more than 1,200 investigational compounds in clinical research. Disease targets include cancer, atherosclerosis, viruses and central nervous system disorders, among others. But there is a major barrier to the flow of new drugs to your patients: The cost of the research is more than ten times what it was, per product, in 1962; and whereas governmental clearance of new drug applications took six months then, it commonly consumes two years now.

The FDA needs adequate time, of course, to consider data. But it is equally clear that the present approval process contributes to needless delay of needed therapy. That's why the increased efficiency of the drug approval process is vital to all our futures.

If these issues concern you, we suggest that you make your voice heard—among your colleagues and your representatives in State legislatures and in Washington.

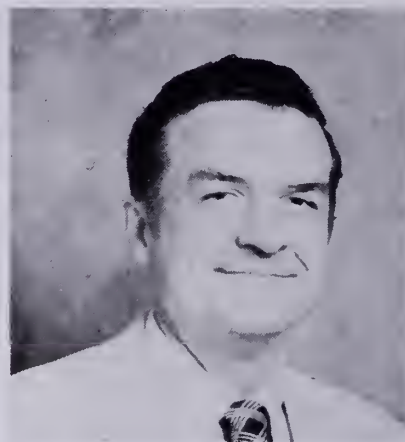
It could make a difference in your practice tomorrow.



Pharmaceutical Manufacturers Association  
1155 Fifteenth Street, N.W., Washington, D.C. 20005

## Highlights Of Mobile

by Bivian Trussell Wright



WILLIAM T. WRIGHT, M.D.

We hope that all of you are making plans to bring your families and attend MASA's annual session in Mobile in April. Realizing that many of you will be coming to Mobile for the first time, and in the case of others, perhaps the first time in years, we thought a few apropos remarks might make your visit more enjoyable.

For those of you driving South on I-65 from North and Central Alabama, we suggest you take the detour through Bay Minette as the Highway Dept. directs. The state troopers take a dim view of those who go around the barriers. Also county road 225 is unsafe at high speed, and some of you tend to get a little heavy footed as you near Mobile. On Battleship Parkway (the causeway), get back on I-65 to come into town and take the Water St. exit (the closest exit to tunnel) if your reservations are for the Malaga Inn, Sheraton, Holiday Inn, downtown, Admiral Semmes or Travelodge. Oftentimes, the Bankhead tunnel is closed for one reason or another. For those of you who will travel highway 43, get on I-65 where it begins rather than driving through Chickasaw and Prichard. Where I-65 joins I-10 you will see two rather unique highway signs, one directing you to Florida, the other to Mississippi. Take the Fla. exit and continue into town provided your reservations are for the above mentioned accommodations. If your travel plans are by air and rental car, drive right on I-65 from Airport Blvd. and proceed as above.

Like many other cities, there are areas in our downtown that have grown a little seedy (forgive me Chamber of Commerce). We urge you to keep your automobile locked. If you live in Cedar Bluff or Red Level and normally just toss your leather jacket on the back seat, please don't do that here. Unhappily, you would just tempt one of our untrustworthy citizens. Also, it would be well for the ladies to keep a firm grip on the handbag when strolling in the area of the downtown hotels.

For the tennis fans, the Mobile Tennis Center welcomes out of town visitors. It has 30 hard surface courts, and 4 soft surface courts. The fee is fifty cents an hour. If golf is your bag, the Azalea City Golf Club has 18 holes with a greens fee of \$4.25. Reservations are suggested for the latter. Both are located in the municipal park. Drive on I-65 to the Spring Hill Ave. exit, drive left on Spring Hill Ave. until it runs into Spring Hill College Golf Course on Old Shell Road is also open to the public—18 holes and the greens fee is \$4.00. Old Shell runs parallel with Spring Hill Avenue and is the street before getting to Spring Hill Avenue. If deep sea fishing is your thing, we suggest that you check with a Baldwin County physician regarding the best charter boat.

If you have time for some sight-seeing, we think you will find a visit to the Bellingrath home and gardens on Isle-Aux-Oies River rewarding. Although primarily known for the beautiful array of azaleas and camellias, the gardens are actually a year round profusion of delightful flowers. The home was designed by Mobile's noted architect, the late Mr. George R. Rigers. It is an effective blend of old south traditional architecture with a touch of Southern European influence. The house is furnished in antiques with a notable collection



of lovely china. Bellingsrath can be reached by driving West on I-10 to the Theodore exit, and follow the signs out of Theodore.

Those among you interned at the old City Hospital will be very proud of how it looks today. Located on St. Anthony Street at Broad, it has been recently restored through the generosity of the late Mr. J. L. Bedsole. It now houses the offices of Mobile County Pensions and Securities Dept.

One of Mobile's most interesting architectural edifices is the old Gulf, Mobile, and Ohio passenger terminal. It is of Moorish design and is adorned with some rather unusual gargoyles. Drive north on Water Street past the International Trade Club. This area is also known as the Henry Aaron Loop named for an illustrious native son.

Within walking distance of the downtown hotels are several of Mobile's oldest churches. At the corner of Church Street and St. Emanuel, you will find old Christ Church. This is just down from the courthouse. On this site stood one of the first Protestant churches of the early colonies. The first Protestant church was built in 1821 and was used by all the Protestant denominations for joint services. Years later, the Episcopalians retained the site and built the present church in 1841. This is the mother church for the Episcopalians of Alabama. The ladies of the church have recently completed pew cushions in needlepoint. There is a beautiful collection of old silver, and two of its stained glass windows are signed by Tiffany. If you see the sexton ask him to show you the silver and to point out these particular windows.

On the other side of Government Street on Claiborne between Conti and Dauphin is the Cathedral of the Immaculate Conception. On Christmas Eve, Mobilians of many faiths go here to attend midnight mass. The iron gates in front are very impressive. This church was built in 1830 by Bishop Portier, on the site of the original old Spanish burial grounds. The much loved Bishop, a native of France, as were many of Mobile's early settlers, came here as a missionary in 1826 and was appointed Bishop of Mobile three years later. He was obviously a very busy and energetic man. Among the things attributed to him are the founding of Spring Hill College (Alabama's oldest), an orphan's home, the visitation nuns, and a parochial school. Bishop Portier's white frame home can be seen from the exterior nearby on Conti between Claiborne and Jackson. Government Street Presbyterian Church is about 100 years old.

A Mobile institution which I feel is one of most handsome public buildings is the old Barton Academy. It was constructed in 1836. It later became the first public school in Alabama. Located on Government Street, it was restored (including its lovely iron fence) to its former splendor in recent years. It is particularly attractive in the evening when it is spotlighted. It now serves as the offices of the Mobile County School Board.

Mobile has been restoring old homes probably more than erecting new ones. Many young couples have been moving back into downtown neighborhoods that have seen better days, and bringing these lovely old homes back to life. I think you will find several of these neighborhoods interesting to drive through. The area around the auditorium and Spanish Plaza is a notable restoration. Also in this area is Charles Crane's Ravesies Galleries. If your wife's birthday or that special anniversary is around the corner and you find yourself in the market for some little bauble, this is just the place. He carries a lovely collection of antique jewelry.

Another downtown area of interest is deToni Square. This area on and around North Joachim Street has a New Orleanish flavor. Some of the houses have been converted to offices and others are apartments. One landmark, the Richards home at 256 North Joachim, presently the home of the Ideal Cement Company, is a striking example. It was erected in 1845, with silver door knobs, door lights of venetian etched glass, and gorgeous ironwork portraying the four seasons.

Washington Square is a charming gaslighted square with houses in various styles. The Oakleigh Period House operated by the Historic Mobile Preservation Society is at 350 Oakleigh Place, nearby and is open for tours for a small fee. South Georgia Avenue is one of my favorite streets. In the autumn, the residents of this street close off the street on a

## Highlights Of Mobile

Saturday afternoon for a street dance. They have a band, draft beer, red beans and rice, and various other goodies served in the host homes. It makes a grand afternoon for those lucky enough to receive an invitation.

Visitors to Mobile always ask where to go for seafood. We have the habit of going to one place for this, and another for that. I will offer my suggestions, and if the kitchen of your choice is having a lousy day, or the waiters are out with the flu, please forget where you obtained these little pearls. For the best crab claws in the world (really), it's the Blue Jay Lounge at Frost Marina on Dog River. They have a very limited menu, no salad with the crab claws, but you'll have to have a big appetite to finish your order. This is primarily a cocktail lounge, and you should be there in time to see the sunset. Drive down Dauphin Island Parkway toward the Gulf, cross the Dog River bridge and follow the signs. For raw oysters, if you can bear the corny decor, it's Wintzels on Dauphin Street, but only if you like them raw, or perhaps an oyster loaf at lunchtime. The best fried oysters, fried flounder and crawfish (in season) is Mack's Wheel House, Spring Hill Avenue in Crichton. Many of you are acquainted with Constantine. Another Constantine restaurant is much better. This one is Gaslight Square on Azalea Road, just off Airport Blvd. The scamp almondine, crab or shrimp Louisanne, the au gratin seafood casseroles, spinach and most deserts are very good. You can eat in the dining room, or if you have no objection to rather loud live music of questionable quality, in the cocktail lounge. The crabmeat salad with blue cheese dressing at the El Toro in the Malaga Inn is one of my favorite lunches. For beef, the Quarternote Supper Club on McGregor Square facing Airport Blvd. is good. A new restaurant, The Pillars, has excellent steak and a wonderful cheesecake. Their prices recognize inflation. We also have a new Cork and Cleaver on Airport Blvd., just west of McGregor. The Alaskan King Crab legs are fantastic. They also have a nice salad bar and an adequate wine list. At each of the latter, I would suggest reservations.

There are three good Chinese Restaurants all on Airport Blvd. We prefer the South China, the third one between Sage Avenue and McGregor. There is no substitution, as none of the cooks speak any English.

The Moongate House on North Conti can be "iffy". We've had good meals, and not so good meals. It tends to be "under new management" frequently. It is currently being run by the Gust family of Louisiana who own New Orleans' Antoinettes. I would suggest that if making reservations you inquire as to what is being served. One doesn't order from the menu, but is served whatever is planned for the evening. It is housed in an old restored home and has a lot of charm. It is furnished in antiques, and the price of your meal includes a tour of the home, if you so desire. Cocktails are especially nice in the courtyard or the former carriage house, if you want to go by for a drink and size it up before making reservations for some later night. They do offer a luncheon menu; however, it is limited to about 4 entrees. I would also suggest reservations at lunchtime.

The City of Mobile museum is just a short walk on Government Street. It houses some interesting local memorabilia, including the crowns of past mardi gras queens. The Phoenix Fire Station Museum is fascinating to children. The next door Patio Gallery sells work of local artisans. Ft. Conde and Ft. Conde Place were Mobile's Bicentennial projects, which recently won an award for the city from the Federal Highway Department and the Department of Transportation (the only one awarded to a Southeastern State). The Old Fort has been recreated, and the Plaza area has been restored. I think you will especially enjoy seeing the Ft. Conde Charlotte house and the old grocery store which is open for business. There are also bicycles for rent in this area.

Bill and I extend you a hearty welcome! If we can do anything to make your 1977 MASA session more interesting, please just give us a call. I would like to remind you that we hold the dubious distinction of being the wettest city in the United States; so do bring your umbrella and raincoat and maybe that will assure us of sunshine. We love our city and we think you will, too. ●





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Available in both tablets and elixir for patients with obstructive lung disease.

**Choledyl® (oxtriphylline) Tablets and Elixir CAUTION:** Federal law prohibits dispensing without prescription. Each partially enteric coated tablet contains 200 mg or 100 mg oxtriphylline. Each teaspoonful of the elixir contains 100 mg oxtriphylline; alcohol 20%. **Indications:** Choledyl (oxtriphylline) is indicated for relief of acute bronchial asthma and for reversible bronchospasm associated with chronic bronchitis and emphysema. **Warning:** Use in pregnancy — animal studies revealed no evidence of teratogenic potential. Safety in human pregnancy has not been established; use during lactation or in patients who are or who may become pregnant requires that the potential benefits of the drug be weighed against its possible hazards to the mother and child. **Precautions:** Concurrent use of other xanthine-containing preparations may lead to adverse reactions, particularly CNS stimulation in children. **Adverse Reactions:** Gastric distress and, occasionally, palpitation and CNS stimulation have been reported. **Dosage:** Average adult dosage: Tablets — 200 mg, 4 times a day; Elixir — two teaspoonfuls, 4 times a day. **Supplied:** 200 mg yellow, partially enteric coated tablets in bottles of 100 (N 0047-0211-51) and 1000 (N 0047-0211-60); Unit Dose — 200 mg tablets (N 0047-0211-11); 100 mg red, partially enteric coated tablets in bottles of 100 (N 0047-0210-51). Elixir — bottles of 16 fl oz (1 pint) 474 ml (N 0047-0215-16). **Toxicity:** Oxtriphylline, aminophylline and caffeine appear to be more toxic to newborn than to adult rats. No teratogenic effects have been seen. Full information is available on request.

CH-GP-51-4/C



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■ **Relief of Nausea and Vomiting**—Antivert/25 can relieve the nausea and vomiting often associated with vertigo\*.

■ **Dosage for Vertigo\***—The usual adult dosage for Antivert/25 is one tablet t.i.d.

#### BRIEF SUMMARY OF PRESCRIBING INFORMATION

**\*INDICATIONS.** Based on a review of this drug by the National Academy of Sciences—National Research Council and/or other information, FDA has classified the indications as follows:

*Effective:* Management of nausea and vomiting and dizziness associated with motion sickness.

*Possibly Effective:* Management of vertigo associated with diseases affecting the vestibular system.

Final classification of the less than effective indications requires further investigation.

**CONTRAINDICATIONS.** Administration of Antivert (meclizine HCl) during pregnancy or to women who may become pregnant is contraindicated in view of the teratogenic effect of the drug in rats.

The administration of meclizine to pregnant rats during the 12-15 day of gestation has produced cleft palate in the offspring. Limited studies using doses of over 100 mg./kg./day in rabbits and 10 mg./kg./day in pigs and monkeys did not show cleft palate. Congeners of meclizine have caused cleft palate in species other than the rat.

Meclizine HCl is contraindicated in individuals who have shown a previous hypersensitivity to it.

**WARNINGS.** Since drowsiness may, on occasion, occur with use of this drug, patients should be warned of this possibility and cautioned against driving a car or operating dangerous machinery.

*Usage in Children:* Clinical studies establishing safety and effectiveness in children have not been done; therefore, usage is not recommended in the pediatric age group.

*Usage in Pregnancy:* See "Contraindications."

**ADVERSE REACTIONS.** Drowsiness, dry mouth and, on rare occasions, blurred vision have been reported.

More detailed professional information available on request.

**ROERIG**   
A division of Pfizer Pharmaceuticals  
New York New York 10017



# Editorial Comments

Journal of the Medical Association of the State of Alabama/19 So. Jackson St./Montgomery, Ala. 36104

## GUEST EDITORIAL

### Rising Costs: An Achilles Heel?

Various forces in Washington are jumping with glee at the thought that they have found the Achilles' heel at which to attack private medicine: rising costs. And if you recall your Homer, the heel was the one part of the body in which the Greek hero was vulnerable.

No longer can Washington accuse physicians of being 50,000 short in numbers. It cannot gainsay the peerless competence of American medicine. It cannot deny what the polls show: that most Americans are satisfied with the quality and availability of their care!

But rising costs—sensationalized by charges of Medicaid fraud on the part of a tiny minority of providers—are being exploited as an excuse for an all-out move against our profession and its freedom.

Rate setting for medical services has been suggested by the Democratic platform and by Jimmy Carter. A move to make it mandatory in all states is likely to be made when the Health Planning Act comes up for extension in 1977—provided that law survives the joint suit of North Carolina and the AMA.

Yet, on the cost issue too, physicians are generally invulnerable in fact, contrary to the thinking of some politicians.

The climb in costs is largely due to impersonal factors that far transcend the personal ability of health-care providers to control them.

These factors include the growth and expansion of clinical competence and technology, the growth of health insurance and its incentives to better care, the relentless surge in professional-liability premiums. They also include greater longevity (and thus a greater incidence of chronic illness), steady inflation, and the network of administrative and procedural expenses engendered by federal involvement in care.

Further aggravating the cost problem is the absence of any quantitative limit on what medicine is supposed to do with its technology, or expected to do. Sophisticated surgery that may stretch life by a few years is unavoidably expensive, and that expense has to be reckoned with if life is to be so stretched.

Obviously, the Topsy-like growth in the demand for, and capabilities of, medical care since World War II has caused overlaps, imbalances, and disarrangements—particularly at the institutional level—and these should be relieved by voluntary planning.

But there is no valid reason for government to try playing the role of marksman Paris and shoot an arrow at

private medicine's heel. Let us bring the real facts of medical costs to our state and communities in every way we can. The public has a right to know! —The AMA ●

### Of The Cardiac Work-Up

There is a practice in most hospital and medical institutions and office groups to do a "complete" work-up of patients. This modern work-up is looked upon with pride and with a sense of superiority. It is considered superior to the work-up of equally competent, if not more competent, physicians who fortunately do not have access to expensive gadgetry and hazardous procedures. Today these "centers" routinely include, along with EPA and lateral roentgenographic views of the heart, ECG, CBC, urine analysis and SMA<sub>12</sub>, other studies such as treadmill exercise testing, coronary angiography, ECHO, lung scan (and other scans at times), unnumerable "consultation visits," and many repeated unnecessary tests and examinations. These special studies are frequently followed by coronary artery bypass surgery, a procedure yet to be carefully and fully evaluated. That these special procedures are hazardous is evident from the requirements of standby defibrillators, potent drugs, endotracheal tubes, ready anesthesiologists, surgeons, trained nurses and physicians. The "crash cart" is always nearby. Why? More importantly, many if not most of these procedures are poorly recorded, too often too erroneously recorded to be reliable, and thus are misleading.

Where is the bedside cardiology? In fact, where is the clinical cardiology? Where is the service rendered? What about the cost to the patient? (The people pay for this regardless of the source of the money). And, when, by whom, and by what means will this unnecessary, expensive, poorly recorded and usually useless hazardous practice be evaluated and modified? It is time to take serious constructive note of the "modern practice" of cardiology. The better the clinical cardiologist, the less he needs from the laboratory to complete his investigations and the "cardiac work-up."

G. E. Burch, M.D.

Tulane University School of Medicine and Charity Hospital  
New Orleans, La. ●

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**Brief Summary of  
Prescribing Information**

**Actions:** Pyrvinium pamoate appears to exert its anthelmintic effect by preventing the parasite from using exogenous carbohydrates. The parasite's endogenous reserves are depleted, and it dies. Povan is not appreciably absorbed from the gastrointestinal tract.

**Indication:** Povan is indicated for the treatment of enterobiasis.

**Warnings:** No animal or human reproduction studies have been performed. Therefore, the use of this drug during pregnancy requires that the potential benefits be weighed against its possible hazards to the mother and fetus.

**Precautions:** To forestall undue concern and help avoid accidental staining, patients and parents should be advised of the staining properties of Povan. Care should be exercised not to spill the suspension because it will stain most materials. Tablets should be swallowed whole to avoid staining of teeth. Parents and patients should be informed that pyrvinium pamoate will color the stool a bright red. This is not harmful to the patient. If emesis occurs, the vomitus will probably be colored red and will stain most materials.

**Adverse Reactions:** Nausea, vomiting, cramping, diarrhea, and hypersensitivity reactions (photosensitization and other allergic reactions) have been reported. The gastrointestinal reactions occur more often in older children and adults who have received large doses. Emesis is more frequently seen with Povan Suspension than with Povan Filmseals.

**How Supplied:** Each Povan Filmseal<sup>®</sup> contains pyrvinium pamoate equivalent to 50 mg pyrvinium, supplied in bottles of 50 (NDC 0710-0747-50; NSN 6505-00-134-1966). Povan Suspension, a pleasant-tasting, strawberry-flavored preparation containing pyrvinium pamoate equivalent to 10 mg pyrvinium per milliliter, is supplied in 2-oz bottles (NDC 0071-1254-31; NSN 6505-00-890-1093).

RC/RD PD-JA-1699-2-P (8-76)

# When it's pinworms, treat the family



## Povan<sup>®</sup> (pyrvinium pamoate)

- over 17 years of proved clinical effectiveness and safety
- no measurable absorption from the GI tract—minimal systemic side effects
- one dose—one time—that's all that's usually required
- two dosage forms: Tablets and Suspension—suitable for the entire family

**Povan—there's a form for every member of the family.**  
**PARKE-DAVIS**

# Letters to the Editor

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## Disgusted

Dear Sir:

I have been getting the Journal of the Medical Association of the State of Alabama for the past several years, but when you ask, "What do you think of the Journal?", I have to say, "Not much." There are several reasons for my opinion, chief among them being the way the Journal gives headline treatment to relatively trivial, crowd-pleasing subjects such as the Heimlich maneuver, and ignores or has no comment on the Alabama Controlled Substances Act, a piece of legislation which exploded like a bombshell, even to those doctors who followed the machinations of the Alabama legislature week by week. I for one did not learn of it in any publication until I received notice from the Alabama State Board of Medical Examiners that, unless \$10.00 was forthcoming on such and such a date, I would be prohibited from practicing medicine in Alabama.

When I sent a letter to MASA president Bill Wright, explaining my objections to such a penal law, he turned the letter over to the lawyer that presumably trouble shoots such issues. In answer to my query as to the constitutionality of a State regulatory board acting as a policing agency, the lawyer merely said that, "No one had tested the constitutionality of the law", and further, the reason that Alabama now had such a law was that the State of Alabama, rather than the Federal government, was preferred as the watchdog. The irony of that attitude in the face of Alabama's capitulating to the Federal government in the matter of medicaid and the late, lamented Swine Flu debacle is exquisite!

The Alabama Controlled Substances Act is no more a deterrent to drug-related crimes than snake oil is to disease. When drug offenders are remanded to probationary officers without serving a day of their sentences, and when the increase in drug traffic is constant, and freely acknowledged by police narcotic experts in Alabama cities, large and small, is there anyone who can seriously maintain that a ten dollar tax on physicians will "control" controlled substances? Why is it that the medical profession is penalized, and the drug traffickers are not? What kind of a society is it that punishes a law-abiding majority for the actions of a law-breaking minority? Where is the Journal on this?

There are other instances where the Journal is biased in favor of the American Medical Association, which is systematically delivering the medical profession up to the Federal Government. Where are the Journal's demurrers to Federal Control? The Journal also carries folksy ads for Blue Cross and Blue Shield, some of whose representatives (in a recent Conference at Hilton Head Island) are on record as blaming the American Physician for the high cost of medical care, totally ignoring the main impetus, inflation due to federal spending. I could go one and on, but I don't think your readership has to have a house fall on them—OR DO THEY?

Disgustedly,  
O. G. Burkart, M.D.  
Auburn, Alabama

## DeKalb County Request

Dear Sir:

I would very much appreciate receiving forty (40) posters on the Heimlich Maneuver. This is a project for our Auxiliary and we would like to place the posters in the schools and restaurants of DeKalb County.

Thank you for making this offer possible to educate students and patrons of the restaurants of this county.

Sincerely,  
Mrs. William (Ann) Noble, Sr.  
President  
DeKalb County Medical Auxiliary  
Fort Payne, Alabama

## Yesterday And Today

Dear Sir:

How far has civilization progressed in 4,000 years? Not far, I promise you.

Until the last malpractice suit is laughed out of court... and lawyers for the plaintiff labeled for what they are—tricksters trying to get something for nothing—we are not out of hearing distance of the tomtom-beating medicine man of the jungle.

Our sense of responsibility for the patient is where it was in the days of Hammurabi...except that now there are no different rules for royalty and commoners.

Today, everybody's equal.  
William J. Mahoney, Jr.  
2355 Wildwood Dr.  
Montgomery, Alabama 36111

## Neonatal ICU Speech

Dear Sir:

I thoroughly enjoyed meeting with the Montgomery Jaycees on 2/14/77 and discussing with them the Neonatal Intensive Care Nursery at Baptist Hospital. I hope that the information which I departed to the group will be of benefit in explaining both what we are doing and aid in an overall understanding of perinatal care for both Montgomery County as well as the South Central region of Alabama. If I can be of any further help in the future, please feel free to contact me.

Sincerely yours,  
Rodney D. Dorand, M.D.  
Director, Regional Neonatal Intensive Care Unit  
Montgomery, Alabama

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## WHAT DO YOU THINK OF THE JOURNAL?

Let us know! Write: Letters To The Editor  
JOURNAL, P. O. Box 1900-C  
Montgomery, Alabama 36104

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## Special Issue

Dear Sir:

The State Committee of Public Health, at its regular meeting on January 19, 1977, unanimously requested that I convey to you the Committee's commendation for your excellent spirit of cooperation and assistance in publishing the special issue of the *M.D.* enabling physicians of Alabama to be promptly advised of the influenza vaccination moratorium which was indicated by observation of cases of Guillian-Barre' Syndrome in a time relationship to influenza immunization.

The Committee considers this action a valuable service by you and the staff of the Medical Association of The State of Alabama in this Public Health endeavor.

My warmest personal regards to you and best wishes from the State Committee of Public Health.

Sincerely yours,

Ira L. Myers, M.D., Secretary

State Committee of Public Health

## Saved A Life

To The Medical Association of The State of Alabama

Dear Sirs:

Attached is the narrative concerning my occasion to use the "Heimlich Procedure" and feel that it very possibly saved a life.

Please feel free to use this in any publication which you see fit in furthering the knowledge of this procedure and how it can benefit the general public.

If I can be of any other assistance, please do not hesitate to let me know.

Sincerely,

William C. Wilson

Assistant Vice President

Collier Cobb & Associates

of Alabama, Inc.

Montgomery, Alabama

"I would like to take this opportunity to thank The Medical Association of The State of Alabama for publishing and televising the 'Heimlich Procedure', as I feel I have directly benefited from this knowledge in a personal way.

Just prior to Christmas, my family and I were eating dinner in the family room so that we could watch a television show, in which we were all interested. During the course of the show and our dinner, my nine-year old son, Sam, got up and walked into the kitchen. I did not notice his leaving the room until my older son, Bill, voiced some concern.

When I got into the kitchen, I found Sam standing at the sink trying to remove a piece of steak which was hung in his throat. I was able to stand behind my son and grasp him in the appropriate position dislodging the piece of steak—thanks to the posters and television announcements concerning the Heimlich Procedure, published by MASA. Thus, producing a happy ending to this incident.

*I would like to thank the Association, on behalf of my wife and myself, for making us aware of how this particular situation was to be handled. We feel that the knowledge of this technique is directly responsible for the favorable outcome in this incidence—the saving of our son's life."*

## "First" Not First

Dear Sir:

You are saying in *The Alabama M.D.* that the April, 1977 MASA meeting offers a "First" in the specialty meetings.

Not so! This program was tried in Birmingham about 10 years ago and must not have worked very well because this is the first time since then it has been tried.

Robert P. Griffin, M.D.

Fort Deposit, Alabama ●

## IN DEFENSE OF FTC CHARGES

The FTC was asked to reconsider its complaint of restraint of trade against the AMA and two medical societies regarding advertising by physicians. In a brief filed with the commission, the AMA said its policy book on ethics, *Opinions and Reports of the Judicial Council*, was being revised before the FTC complaint was filed. As a result, the brief said, the AMA is being forced to defend statements that do not even reflect current policy. The FTC complaint was filed in December, 1975, against the Association, the Connecticut State Medical Society and the New Haven Medical Assn. ●





## PAYMENT AT THE TIME OF SERVICE AND THE EXIT COUNTER

There is an increasing trend for medical offices to adopt a policy of payment at the time the service is rendered for small accounts such as office visits. This doesn't mean that you put up a large sign in the office saying, "All Work Cash." There is a more professional and better way of implementing such a policy.

Generally, all that is required is for the medical assistant at the exit counter to say, "The service today, Mrs. Smith, is \$12.00," or whatever the amount of the bill. The medical assistant then waits for a response from the patient.

Mrs. Smith may pay the \$12.00—or ask if she can write a check—or say that she isn't prepared to pay today. The medical assistant then says, "We will be happy to bill you for this visit, Mrs. Smith, but we would appreciate it if you would plan to pay for your next office visit at the time you come to the office."

The medical assistant can, if you prefer, go one step further. She can make up a handwritten bill on the spot and hand it to Mrs. Smith and say, "Here is the bill for today's services. Please send us a check when you get home."

A policy of payment at the time service is performed can have rather dramatic results. A professional consultant recounts a story about a three-man group that was sending out 2,900 statements per month and had \$70,000 outstanding on the books. Within six months after establishing a policy of payment at the time of service, for charges of \$15.00 and under, the statement load dropped to 900 per month and the outstandings were reduced to approximately \$20,000.

The medical assistant doesn't have to do this arbitrarily, without exception. If the patient has a problem that requires long and constant treatment the exit encounter can be used to find out if keeping up with the payments will be a problem and to offer to work out a payment plan if necessary.

When it is known in advance that the patient is going to incur a large medical bill, the cost should be frankly discussed with the patient by the doctor (or the medical assistant) to help the patient arrange a payment procedure. If insurance is involved, the medical assistant will probably have more information about the coverage than the physician.

Regular patients who sometimes pay and sometimes do not, and whose accounts continue to grow can also be a problem. These accounts should be "flagged" and when the patient next makes an appointment be sure that the account record is at the exit counter. The medical assistant should call the patient's attention to the balance due and suggest a payment arrangement to clear up the account before it gets so large that it becomes a real burden to the patient.

If your office has a *Patient Information Booklet*, and we find many more offices now using these little booklets, you

can clearly state in it your policy of payment at the time of service and your willingness to discuss the cost of expensive medical procedures. (If you do not have a patient information booklet you can write to the AMA Department of Practice Management for a small folder on *How To Prepare A Patient Information Booklet*).

When a patient visits the doctor for medical attention he or she has at least two questions in mind. First, "What can the doctor do for me?" and second, "What is it going to cost?" Presumably there are some patients so affluent that cost is no factor, however, even those patients are often very conscious of the cost of the goods and services they purchase. Your average patient—if he intends to pay—wants to know the cost so that he can include it in his economic planning. The patient who doesn't intend to pay is not, of course, concerned with the amount of the charge. ●

## "STARTING YOUR PRACTICE" COURSES

The AMA Departments of Housestaff Affairs and Practice Management will co-sponsor "Starting Your Practice" workshops for young physicians planning to enter private practice. Each two-day program will be at AMA Headquarters. Dates are Feb. 21-22, March 15-16, March 29-30, May 3-4, May 23-24 and June 7-8. For details write Dept. of Practice Management, AMA Headquarters. ●

## PARKINSON DISEASE CENTER OPENED IN ATLANTA

The American Parkinson Disease Association opened an information service in Atlanta, Georgia on October 1, 1976. As Dr. John Lee, the medical director explains, "This is to be an information and referral service only. No patient care will be given by our staff. The purpose of this service is to provide the public with information about the disease, its treatment, and where to obtain medical help, equipment for the home, and outpatient physical therapy services.

The American Parkinson Disease Association feels that there is a very real need for this information among the general public. Through providing such a service the APDA expects to stimulate public interest in Parkinson's Disease and thereby broaden its financial support for research."

Physicians interested in treating Parkinson's Disease and who will permit their names to be included in the referral list should write to: Parkinson's Disease Information Service, 25 Prescott Street, Atlanta, Georgia 30308, including their name, office address, and office phone number, or they may call 1-404-892-6995 between the hours of 9 a.m. and 3 p.m. Names of referral physicians will be furnished upon request to persons wishing to see a doctor in their own community. ●

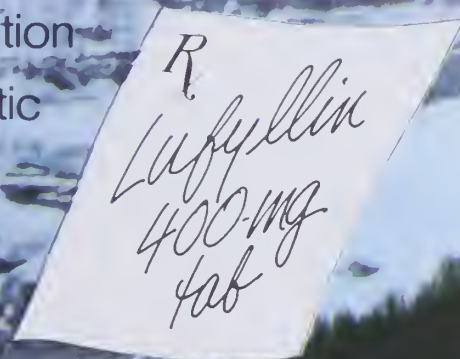


"AIR...A BASIC NEED FOR LIFE SUPPORT"

# Announcing NEW LUFYLLIN-400 (dyphylline, 400-mg tablets)

A basic need for the bronchospastic patient because...

- A single-entity theophylline derivative
- Therapeutically effective
- High solubility for predictable absorption
- Doses required to achieve therapeutic levels are readily tolerated with little to no gastric distress.



LUFYLLIN® (dyphylline)  
LUFYLLIN®-400 (dyphylline) Tablets

**Following is a Brief Summary:**

**Indications:** For relief of acute bronchial asthma and for reversal of bronchospasm associated with chronic bronchitis and emphysema.

**Contraindications:** In individuals who have shown hypersensitivity to any of its components.

Dyphylline should not be administered concurrently with other xanthine preparations.

**Precautions:** Use with caution in patients with severe cardiac disease, hypertension, hyperthyroidism, or acute myocardial injury. Particular caution in dose administration must be exercised in patients with peptic ulcers, since the condition may be exacerbated. Chronic oral administration in high doses (500 to 1,000 mg) is usually associated with gastrointestinal irritation.

Great caution should be used in giving dyphylline to patients in congestive heart failure. Such patients have shown markedly prolonged blood level curves which have persisted for long periods following discontinuation of the drug.

**Adverse Reactions:** Note: Included in this listing which follows are a few adverse reactions which may not have been reported with this specific drug. However, pharmacological similarities among the xanthine drugs require that each of the reactions be considered when dyphylline is administered.

The most common adverse reactions are:

1. Gastrointestinal irritation: nausea, vomiting, and epigastric pain, generally preceded by headache, hematemesis, diarrhea.

2. Central nervous system stimulation: irritability, restlessness, insomnia, reflex hyperexcitability, muscle twitching, clonic and tonic generalized convulsions, agitation.

3. Cardiovascular: palpitation, tachycardia, extrasystoles, flushing, marked hypotension, and circulatory failure.

4. Respiratory: tachypnea, respiratory arrest.

5. Renal: albuminuria, increased excretion of renal tubule and red blood cells.

6. Others: fever, dehydration.

**Dosage and Administration:** Adults—Usual Dose—15 mg/kg every 6 hours, up to four times a day. The dosage should be individualized by titration to the condition and response of the patient, with therapeutic blood levels considered to be between 10 mcg/ml and 20 mcg/ml. Levels above 20 mcg/ml may produce toxic effects.

**How Supplied:**

LUFYLLIN® Tablets—containing 200 mg dyphylline. NDC 0019-R521-92, bottles of 100; NDC 0019-R521-97, bottles of 1000.

LUFYLLIN®-400 Tablets—containing 400 mg dyphylline. NDC 0019-0731-92, bottles of 100.

**CAUTION:** Federal (U.S.A.) law prohibits dispensing without prescription.

For full prescribing information, please review package insert, or write

**Mallinckrodt**

Pharmaceuticals Linking Chemistry to Medicine

Mallinckrodt, Inc. St. Louis, Mo. 63147



## A Lonely Figure on a Lonely Road

By GEORGE SHEEHAN, M.D.

*Columnist Sheehan is a practicing cardiologist in Red Bank, New Jersey, and author of "Dr. Sheehan On Running" (World Publications, P.O. Box 366, Mountain View, California 94040). His comments are reprinted by permission, "The Physician And Sports Medicine," November, 1976.*

I am a lonely figure when I run the roads. People wonder how far I have come, how far I have to go. They see me alone and friendless on a journey that has no visible beginning or end. From the security and safety of the automobile I appear isolated and vulnerable, a homeless creature. It is all they can do to keep from stopping the car and asking if they can take me wherever I'm going.

I know this because I feel it myself. When I see a runner I have much the same thoughts. No matter how often I run the roads myself, I am struck by how solitary my fellow runner appears. The sight of a runner at dusk or in inclement weather makes me glad to be safe and warm in my car and headed for home. And at those times I wonder how I can go out there myself, how I can leave comfort and warmth and that feeling of intimacy and belonging to do this distracted thing.

But when finally I am there, I realize it is not comfort and warmth I am leaving, not intimacy and belonging I am giving up, but the loneliness that pursues me this day and every day. I know the real loneliness, the real isolation, the real vulnerability begins long before I put on my running shorts and tie my running shoes. The real loneliness begins with my failures as son, husband, father, physician, lover, friend. The real loneliness begins when those other gods have failed, the loved ones, the career, the triumphs, the victories, the good life.

That heartbreaking loneliness begins when I realize that no one can think for me; no one can live for me; no one can die for me. I can count on no one for help.

The true loneliness, then, is me seeing that nothing I do is true. Me and this inner emptiness, me and the abyss, me and the false me I am with other people, me being what I do, what I accomplish, the clever things I say. Me and that living of a lie, a long lonely lifetime lie.

When I'm about overwhelmed by all this I take this loneliness out on the roads, there to find my true self, to hear my own message, to decide for myself on my life. But most of all, to know certainty, to know that there is an answer even though I may never find it.

All this is not new. Hell may be other people but the final enemy is within. "Will I always torment like this," wrote Gide. "I worry from morning to night. I worry about not knowing who I want to be." And then hear R. D. Laing, the psychiatrist. "Whoever I am is not to be confused with the names people give me or how they describe me or what they call me. I am not my name. I am a territory. What they say about me is a map of me. Where O! Where is my territory?"

When you see me, that lonely figure out on the road, I am looking for my territory, my self, the person I must be. There I am no longer the observer watching myself think and talk and react. I am not the person others see and meet and even love. There I am whole; I am finally who I am.

And there I encounter myself. That encounter is a deep place totally isolated which cannot be understood or touched by others, a place that cannot be described as much as experienced, a state that philosophers would define as solitude. It is no longer me and the abyss; it is me and my God.

But of course this is only the outline, the game plan. In actuality it is not that easy. Like all pilgrimages this one is filled with stops and starts, with peaks and valleys, with pains and pleasures. There are periods of depression and elation, times when I overflow with joy at this conjunction of action and contemplation. Other times when I am so tired I must stop and walk. But in that hour I know certainty. I know there is an answer to my odd union of animal and angel, my mysterious mixture of body and consciousness, my perplexing amalgam of material and spirit. And if for now that answer is only for the moment and only for me in my lowest common denominator, me the runner, it is still enough.

By abandoning myself to this, as Emerson said, by unlocking my human doors, I am caught up in the life of the universe. Then, finally, loneliness is dispelled. I know I am holy, made for the greater glory of my Creator, born to do His work.

Which for this day and this hour is running, a lonely figure on a lonely road. ●



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# HEARING IS AS PRECIOUS AS SIGHT HAVE YOU HAD YOUR HE TESTED LATELY A SIM COMFORTABLE HEARING INVESTMENT OF A FEW MIN

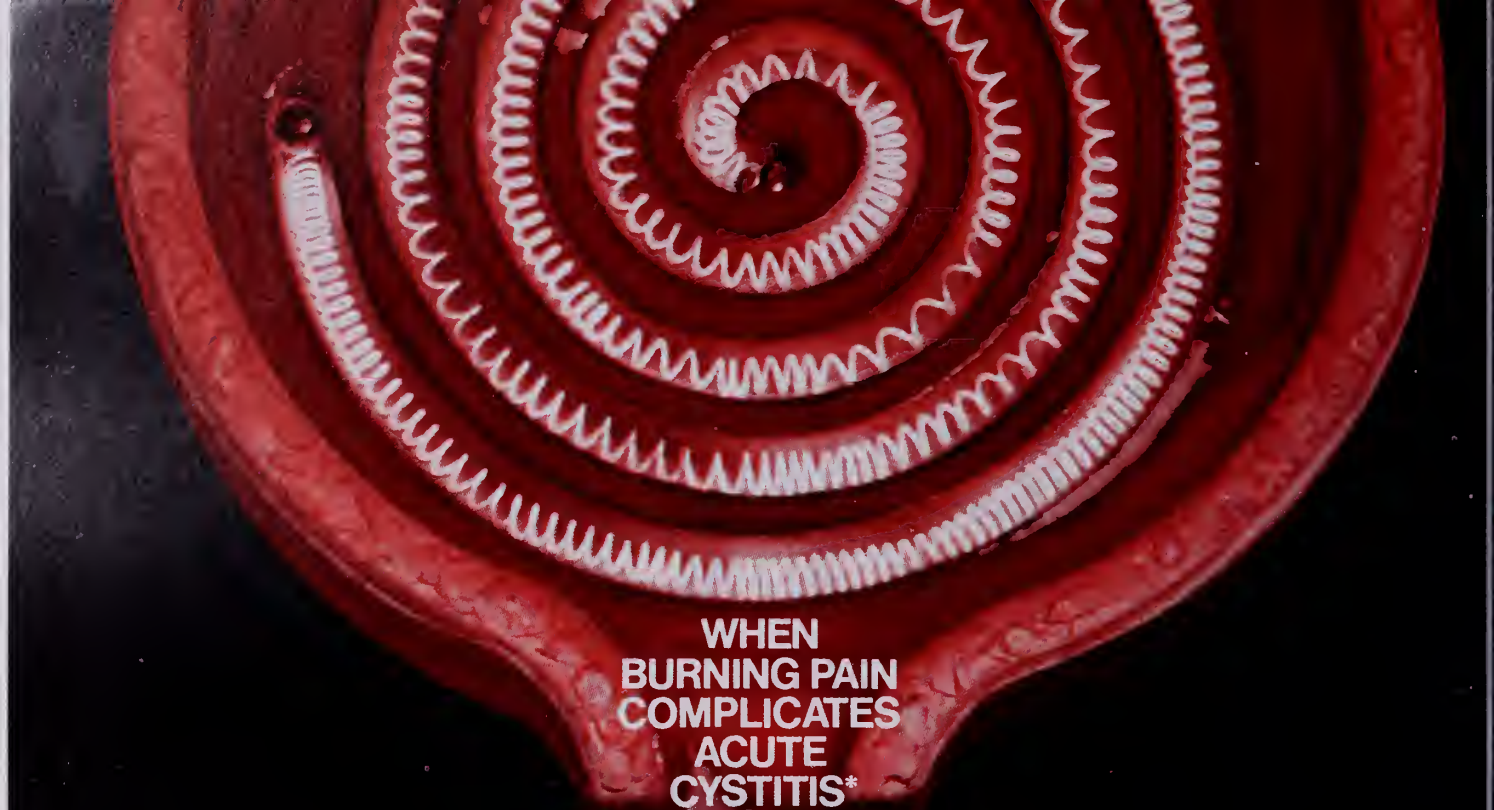
Hearing losses are among the most consistently neglected health problems. Many people with them won't even admit it to themselves, let alone others. A little encouragement may start them thinking about themselves more realistically.

That's why we're offering you the poster shown here. You can hang it on the wall or stand it on a small table. It comes with booklets called "As precious as sight" that give your patients some basic facts about auditory testing and hearing losses and how easy they are to correct in many cases.

Write to us for your free poster and booklets. They just might help you to help some patients who aren't hearing as well as they used to. Even those who ordinarily wouldn't hear of it.

Professional Relations Division, Beltone Electronics Corporation  
4201 West Victoria Street, Chicago, Illinois 60646, an American company

**Beltone**  
WHEN A HEARING  
AID WILL HELP



WHEN  
BURNING PAIN  
COMPLICATES  
ACUTE  
CYSTITIS\*

TURN IT OFF WITH

# AZO GANTANOL<sup>®</sup>

Each tablet contains 0.5 Gm sulfamethoxazole and 100 mg phenazopyridine HCl.

## FOR THE PAIN

- Quickly relieves painful symptoms such as burning and pain associated with urgency and frequency.
- Recommended antibacterial therapy: up to 3 days with Azo Gantanol, then 11 days with Gantanol (sulfamethoxazole).

Before prescribing, please consult complete product information, a summary of which follows:

**Indications:** In adults, urinary tract infections complicated by pain (primarily pyelonephritis, pyelitis and cystitis) due to susceptible organisms (usually *E. coli*, *Klebsiella-Aerobacter*, *Staphylococcus aureus*, *Proteus mirabilis*, and, less frequently, *Proteus vulgaris*) in the absence of obstructive uropathy or foreign bodies.

**Note:** Carefully coordinate *in vitro* sulfonamide sensitivity tests with bacteriologic and clinical response; add aminobenzolic acid to follow-up culture media. The increasing frequency of resistant organisms limits the usefulness of antibacterials including sulfonamides. Measure sulfonamide blood levels as variations may occur; 20 mg/100 ml should be maximum total level.

**Contraindications:** Children below age 12; sulfonamide hypersensitivity; pregnancy at term and during nursing period; because Azo Gantanol contains phenazopyridine hydrochloride it is contraindicated in glomerulonephritis, severe hepatitis, uremia, and pyelonephritis of pregnancy with G.I. disturbances.

**Warnings:** Safety during pregnancy not established. Deaths from hypersensitivity reactions, agranulocytosis, aplastic anemia and other blood dyscrasias have been reported and early clinical signs (sore throat, fever, pallor, purpura or jaundice) may indicate serious blood disorders. Frequent CBC and urinalysis with microscopic examination are recommended during sulfonamide therapy.

**Precautions:** Use cautiously in patients with impaired renal or hepatic function, severe allergy, bronchial asthma; in glucose-6-phosphate dehydrogenase-deficient individuals in whom dose-related hemolysis may occur. Maintain adequate fluid intake to prevent crystalluria and stone formation.

**Adverse Reactions:** Blood dyscrasias (agranulocytosis, aplastic anemia, thrombocytopenia, leukopenia, hemolytic anemia, purpura,

## FOR THE PATHOGENS

- Effectively controls susceptible pathogens such as *E. coli*, *Klebsiella-Aerobacter*, *Staph. aureus*, *Proteus mirabilis* and, less frequently, *Proteus vulgaris*.

\*nonobstructed; due to susceptible organisms

hypoprothrombinemia and methemoglobinemia); allergic reactions (erythema multiforme, skin eruptions, Stevens-Johnson syndrome, epidermal necrolysis, urticaria, serum sickness, pruritus, exfoliative dermatitis, anaphylactoid reactions, periorbital edema, conjunctival and scleral injection, photosensitization, arthralgia and allergic myocarditis); G.I. reactions (nausea, emesis, abdominal pains, hepatitis, diarrhea, anorexia, pancreatitis and stomatitis); CNS reactions (headache, peripheral neuritis, mental depression, convulsions, ataxia, hallucinations, tinnitus, vertigo and insomnia); miscellaneous reactions (drug fever, chills, toxic nephrosis with oliguria and anuria, periarteritis nodosa and L. E. phenomenon). Due to certain chemical similarities with some goitrogens, diuretics (acetazolamide, thiazides) and oral hypoglycemic agents, sulfonamides have caused rare instances of goiter production, diuresis and hypoglycemia. Cross-sensitivity with these agents may exist.

**Dosage:** Azo Gantanol is intended for the acute, painful phase of urinary tract infections. **Usual adult dosage:** 2 Gm (4 tabs) initially, then 1 Gm (2 tabs) B.I.D. for up to 3 days. If pain persists, causes other than infection should be sought. After relief of pain has been obtained, continued treatment with Gantanol (sulfamethoxazole) may be considered.

**NOTE:** Patients should be told that the orange-red dye (phenazopyridine HCl) will color the urine.

**Supplied:** Tablets, red, film-coated, each containing 0.5 Gm sulfamethoxazole and 100 mg phenazopyridine HCl—bottles of 100 and 500.

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\* **Indications:** When the fixed combination represents the dosage determined by titration: Adjunctive therapy in edema associated with congestive heart failure, hepatic cirrhosis, the nephrotic syndrome. Corticosteroid and estrogen-induced edema, idiopathic edema; hypertension, when the potassium-sparing action of its 'Dyrenium' component is warranted.

**Contraindications:** Further use in progressive renal or hepatic dysfunction; hyperkalemia. Pre-existing elevated serum potassium. Hypersensitivity to either component or other sulfonamide-derived drugs. Routine use of diuretics in otherwise healthy pregnancy.

**Warnings:** Do not use potassium supplements, dietary or otherwise, unless hypokalemia develops or dietary intake of potassium is markedly impaired. If supplementary potassium is needed, potassium tablets should not be used. Hyperkalemia can occur, and has been associated with

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**Precautions:** Do periodic serum electrolyte determinations (particularly important in patients vomiting excessively or receiving parenteral fluids). Periodic BUN and serum creatinine determinations should be made, especially in the elderly, diabetics, or those with suspected or confirmed renal insufficiency. Watch for signs of impending coma in severe liver disease. If spiro-lactone is used concomitantly, determine serum  $K^+$  frequently; both can cause  $K^+$  retention and elevated serum  $K^+$ . Two deaths have been reported with such concomitant therapy (in one, recommended dosage was exceeded, in the other serum electrolytes were not properly monitored). Observe regularly for possible blood dyscrasias, liver damage, other idiosyncratic reactions. Blood dyscrasias have been reported in patients receiving Dyrenium® (triamterene, SK&F Co.), and

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# British National Health Service Is

Heart surgery postponed because of lack of beds in the intensive care unit, unconscious patients on hospital admissions waiting lists, and patients waiting months to years for elective surgery are typical of the horror stories surrounding the British National Health Service (NHS).

The program, once a model for a possible American health program, is teetering on the brink of a major crisis.

Lack of medical facilities and staff, and the poor quality of over-all care have led to increasing dissatisfaction with the system.

Even though the average person in Great Britain pays approximately \$6.75 a week in taxes and 28 cents in direct contribution to the NHS, many are buying private health insurance to supplement the government program.

The British United Provident Association (BUPA), an affiliate of National Blue Shield, provides health insurance for 2.5 million subscribers who prefer private medical and surgical care to the NHS. This insurance pays consultation fees and the cost of a private hospital bed.

To see why Britons are willing to pay out of their pockets for private care after already paying taxes for public health care, it is necessary to trace the history of NHS.

The National Health Service, officially begun in 1948, actually was championed during World War II by the Labour Party's Aneurin Bevin. The program was touted by politicians as a means of guaranteeing every citizen equal access to the best, up-to-date medical care available. This health service would provide full medical care to every citizen, "free."

"We ought to take pride in the fact that despite our financial and economic anxieties," said Bevin in a parliamentary debate, "we are still able to do the most civilized thing in the world—put the welfare of the sick in front of every other consideration."

The NHS framers, paying little attention to advance estimates of the program's cost, believed as soon as all of Britain's sick received proper care, the nation's medical costs would drop as demand went down.

"The true provisions for a free health service must depend on the

FALLING  
FALLING  
DOWN  
DOWN

THE BLUE SHIELD NEWS,  
January, 1977, Reprinted by Permission.

behavior of the public," said Bevin, "and the only way to discover it must be to permit the public to behave. A year's practical working of the scheme would be needed to discover the cost with real accuracy."

Unfortunately, he did not foresee the possibility that once offered "free" care, citizens would seek care for both serious and trivial medical problems.

The British people took advantage of their "free" medical care, and it was not long before the government found a way to cope with the demand. It eventually imposed a ceiling on NHS expenditures, thus cutting down on the availability of medical resources. If the services were not available, the reasoning went, demand could not increase. To avoid public opposition to the solution, emphasis was placed on immediate medical demands—doctor's services, hospital care and free drugs. Preventive medicine, new hospitals, and medical education went by the wayside.

The quality of medical care undoubtedly has suffered from the solution. Insufficient medical equipment and long waiting lines are two of the biggest complaints. In 1974, 517,000 people in England were waiting for "noncritical" surgery. This encourages individuals to seek private care.

Britain's family doctors are paid by the government on a capitation formula—so much annually per patient. These general practitioners, as they are called, practice by themselves or in groups. The financial incentive is to get as many patients as possible. GPs may also see "private" patients, who

pay directly for consultations, and can supplement their incomes.

Each physician is assigned an average of 2,500 people. Because of the size of his practice, a physician spends an average of five minutes with each patient per visit.

The British Medical Association estimates the value of a doctor's private practice at about \$8,000 a year. According to Paul Mixson in a recent issue of *Physician's Management*, medical reporters on British newspapers say doctors can easily double their NHS wages through private practice. He added that a survey done by a group of Belgian doctors from Louvain University estimated the average British doctor earns \$10,400 a year, the lowest in Europe.

The hospital service is comprised of "consultants" and a staff of junior doctors. These consultants specialize in different fields and have less experienced doctors serving under them. When a person is admitted to a hospital, this staff usually supervises the patient's care. While all are government employees, the consultants and their subordinates may engage in outside work for patients referred by GPs. In 1973, 49 per cent of all consultants held part-time government contracts and also saw private patients.

"Eighty per cent or more of all consultant ophthalmologists, orthopedic surgeons, and obstetricians and gynecologists see private patients," said Harry Schwartz in an essay in *The Alternative*. "On the other hand less than 20 per cent of all consultants in geriatrics, pathology, and mental re-

CONTINUED ON PAGE 28

# British National Health Service

tardation do so. Surgeons and anesthesiologists earn most of private fees."

Private patients are convinced they receive better care and more attention from the physician. They can choose the physician they want, knowing he will spend more time with them in consultation and will probably be able to obtain operating time more promptly for them.

A general dissatisfaction with the NHS has sent individuals looking for an alternative. BUPA alone has grown 2,700 per cent since the inception of NHS.

In 1974, militant factions of the Labour Party began pushing to abolish private practice by eliminating private NHS hospital beds. Hospital beds in NHS hospitals reserved for private patients are called "pay beds," and account for about one per cent of all NHS hospital beds. Physicians receive fees for private beds, but nurses, lab technicians and others receive nothing extra. Many unions consider the private patient's ability to obtain quicker service unfair.

The public apparently does not agree. During the initial flareup, two public surveys were taken. The first study's results showed 19 per cent of the population in favor of abolishing private beds. After the issue broke, 20 per cent were for it.

Following the 1974 elections, the winning Labour Party said it planned to eliminate pay beds. These beds comprised 4,500 out of a total of 420,000 NHS beds. The situation provoked a consultant strike in early 1975.

That summer the government said it planned to phase out private beds and introduce stricter licensing requirements for private hospitals. These licenses require that new private hospitals obtain the consent of a local committee before opening. They can only open if they do not jeopardize the nearby NHS hospital.

"The licensing requirements are viewed as a protective measure by the government," said Mixson in his article. "If it phased out private beds, many doctors would simply leave the NHS and go into private practice. So, to close this door, the government decided to regulate private medicine

further with renewable hospital licenses."

The government has said it will phase out 25 per cent of the pay beds immediately and the remainder over several years.

The British Medical Association surveyed consultants to learn their feelings about the decision. With only 50 per cent responding, 75 per cent said they objected, and 29 per cent said they were prepared to resign from NHS.

In the meantime, the government has been raising the costs of private beds. Costs of these beds have increased 400 per cent since 1969.

But the dispute goes beyond whether hospitals should have private beds or not. Many doctors see the government's attempts to phase out private beds as the first step in eliminating private practice.

---

"...An intern starts at \$5,200,

while the average factory worker makes \$7,000...overtime pay ranges from 75 cents an hour to \$1.40..."

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Not only are doctors saying they are already overworked—the average consultant works 70 hours a week—but they are increasingly critical of the already low standards of care under NHS.

They say citizens under NHS are serviced in areas with too few hospitals and not enough physicians and surgeons. Doctors treat patients in 19th century hospitals—since 1949 about 41 new hospitals have been built—and the number of hospital beds has remained stagnant since 1950.

Besides the antiquated equipment and facilities, the NHS hospitals employ 33,000 doctors, 19,000 of which are junior doctors with less than seven years of experience. According to British Medical Association statistics, 50 per cent of all junior doctors are foreign born. Half of them supposedly fail every certification exam.

The junior doctors also have a complaint. An intern starts at \$5,200,

while the average factory worker makes \$7,000. These doctors claim they already work more than 100 hours a week, including overtime. Overtime pay ranges from 75 cents an hour to \$1.40.

"If you call out someone to fix your washing machine, you pay five or ten pounds (\$10 or \$20), but call in a hospital doctor to fix you, and you pay thirty bob (\$3). That seems incredible to me," said one junior doctor in the *Physician's Management* article.

Morale is so bad that more and more doctors are considering emigration. The last reliable British figure shows that 20 per cent of each year's medical school graduates leave the country.

"Although a net flow of 400 to 500 (physicians emigrating) a year is already 20 per cent of each year's new doctors" said Mixson, "the outflow may increase markedly at the end of this year when the Common Market changes its regulations. Then the Common Market will start allowing doctors to move without a new medical exam anywhere within the nine member countries."

Britain's economic outlook offers no relief to the NHS. Due to a general cutback in spending, the NHS budget is expected to grow only 1.5 per cent through 1980.

Some government officials are becoming disillusioned with their socialized medical system. Britons are demanding the "free" medical care guaranteed them. Physicians want their right to continue private practice. And the government cannot afford to pump more funds into the suffering system.

The Labour Party minister in charge of the NHS summed up the NHS's plight when he said: "The health service was launched on a fallacy. First we were going to finance everything, cure the nation and then spending would drop. That fallacy has been exposed. Then there was the period when everybody thought the public could have whatever they needed on the health service—it was just a question of governmental will. Now we recognize that no country, even if they are (sic) prepared to pay taxes, can supply everything." ●



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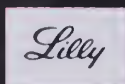
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# The Predictive Significance Of Common Observations In The Health Checkup

by  
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(Editor's Note: The following manuscript is a companion to the one entitled "Conventional Versus Preventive Medicine", printed in the January, 1977, issue of the Journal, Vol. 46, No. 7.)

## Introduction

In conventional medicine, the usual sequence of events involves a comparative analysis of a particular classical syndrome and its biochemical constituents. For example, in the traditional multiple testing program, considerable attention is directed to blood glucose levels as they relate to diabetes mellitus and the serum cholesterol concentration in terms of ischemic heart disease.

Predictive medicine, concerned as it is with the *anticipation* of disease, has given rise to a unique experimental model. Four examples will serve as the basis of this report.

## Anatomy of Man

For purposes of this discussion, man may be viewed as a multilamellated sphere<sup>1</sup>. Hence, any way one turns a ball, it looks the same. In that context, however one diagnostically inspects man from the outside, the predictability is the same. It must be granted, viewed in one way, there may be a limp characteristic of a cerebrovascular accident; examined from a different angle, there are pimples. But these and all other peripheral stigmata possess a common denominator; they signify an index of the syndrome of sickness (Figure One).

Additionally, as progressively deeper layers of a lamellated sphere are examined, one eventually approaches the core. In man also, diagnostic layers may be stripped away until the central problems are brought into focus (Figure One). If one grants that the only physiologic indication for an aspirin, for example, is an aspirin deficiency, then the

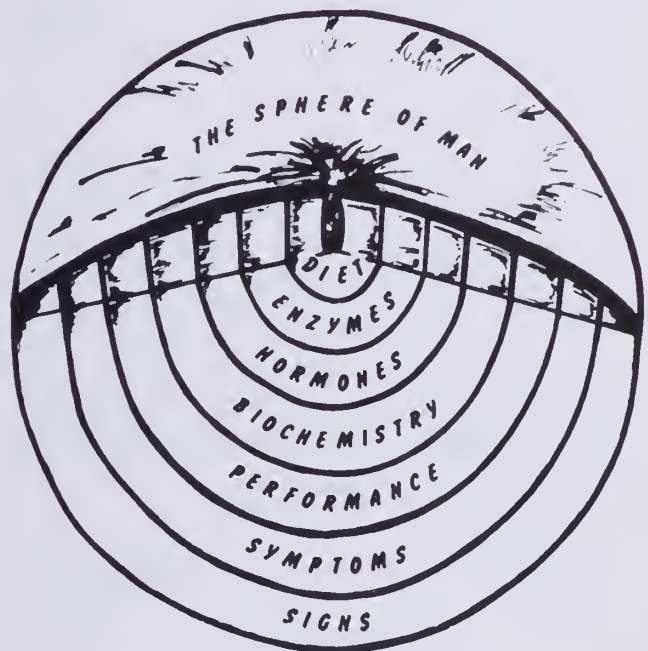


Figure One. Man may be likened to a lamellated sphere. The periphery of both are easily inspected. Layers can be removed which progressively expose the core problems.

core possibilities are very limited. This becomes more evident when it is remembered that the air one breathes is federalized and the water one drinks is also under governmental control. Viewed in this context, diet, shown in this illustration, and physical activity along with tobacco, alcohol, coffee and tea become the most important core factors.

**Signs:** The outer, the most peripheral, ring is readily inspected in both a sphere and in man. At his level, one can make three observations.

First, it is possible to identify evidence of the ravages of *classical* disease such as the pathognomonic gait associated with a cerebrovascular accident, a skin eruption typical of impetigo, a carious tooth. This type of information fits the box on the right in Figure Two.

The end product of such an analysis is demonstrated in Figure Three. Thus, the patient is viewed as suffering with

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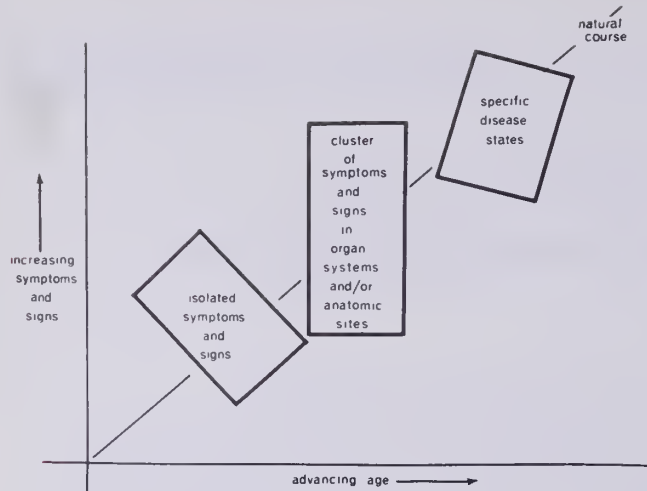


Figure Two. The periphery of man provides three sets of information. First, the presence of obvious classical disease (box on the right), symptoms and signs in systems and sites (box in the middle), and early seemingly unrelated findings (box on the left).

Doe Jane	47	WF
final diagnoses	7 emphysema, chronic, idiopathic	
1 hypertension, essential, mild	8 arteriosclerosis, senile, generalized	
2 psoriasis, exfoliative, moderate	9 dental caries, moderate	
3 osteomyelitis, femur, inactive	10 periodontitis, nonspecific	
4 arthritis, rheumatoid, early	11 anemia, normocytic, nonspecific	
5 epistaxis, recurrent, due to undetermined cause	12 gastritis, chronic, idiopathic	
6 stomatitis, aphthous, periodic	13 myopia, progressive	
	14 psychoneurosis, mild	

Figure Three. A typical diagnostic workup showing an array of problems having as a common denominator unknown etiology.



Figure Four. In healthy man, all levels are in balance.

hypertension, a problem generally recognized as of unknown origin. It will be observed that this 47-year-old white female also suffers with psoriasis, a skin problem of unknown etiology. Clearly, there is presently no known cause for rheumatoid arthritis. It is suggested, in this final diagnostic sheet, that the patient suffers with recurrent nose bleeds due to undetermined cause. In the interest of expedition, one must add that the aphthous lesions in the mouth, the emphysema, the arteriosclerosis, and so forth, have as a common denominator an obscure if not unknown causation. By act, if not by word, it is usually held that the problems shown in Figure Three are relatively independent or unrelated in terms of their causes. Phrased another way, in the traditional medical sense, man is viewed much like an automobile so that it is possible to suffer with transmission problems, inadequate springs, and unsatisfactory brakes! What is particularly regrettable is that this kind of *diagnosis*, unfortunately, is simply an accounting of the damage largely derived from a peripheral inspection of man.

Second, signs can be obtained at this peripheral level which provide an estimate of pathosis referable to a particular system, such as the gastrointestinal tract, or a special site like the eye even though the findings do not fit the textbook description of a particular syndrome or disease. This type of information is shown in the center box in Figure Two.

Finally, it is possible to establish simply the numbers and kinds of signs without any regard to how or where they fit into systems or sites or classical disease categories. In other words, one can simply use the total number of clinical findings as an index of incipient disease.



Figure Five. Following a core problem (diet, exercise, etc.), there are eventual disturbances in order at the enzyme level, hormones, biochemical state, performance, and finally symptoms and signs.



**Symptoms:** If one strips off the outer layer (Figure One), into focus comes the zone of symptoms. It must be granted, where the outer layer ends and the most peripheral one begins can be quite arbitrary. Also, it should be pointed out that the designation of whether a finding is a symptom or a sign can be argued. For example, the bleeding observed by a doctor is classified as a sign but would be regarded as a symptom when reported by the patient.

Symptoms are not as readily discernible as signs and can only be derived through interrogation by means of the classical interview or some form of questionnaire. The cardinal point to be recognized, for predictive purposes, is that symptoms generally precede signs of disease. Thus, unaccountable fatigue may well be the most significant and sometimes the only antecedent of a myocardial infarct. For purposes of this discussion, evidence obtained in this zone may anticipate more peripheral problems.

**Performance:** Stripping off the second layer unearths the world of performance (Figure One). Impairment in performance generally heralds the appearance of symptoms and signs. Physical activity is frequently used in the evaluation of organ and system activity as in the case of the treadmill for the assessment of cardiovascular state. The cardinal point to underline at this time is that a disturbance in performance precedes the advent of symptoms and signs of disease. Hence, common sense would dictate that this zone can be used as an effective predictor of clinical change.

**Biochemical State:** Removing the performance layer brings into view the biochemical pattern. This is a very complex but productive area, and the number of available biochemical parameters seems almost endless. Biochemical measures of blood, saliva, urine, hair, nails, and breath provide significant diagnostic and prognostic data.

For example, the American Diabetes Association now claims that the clinical diabetic patient has been suffering with chemical diabetes mellitus for at least ten years.

**Hormonal Balance:** Dissecting off the biochemical layer brings into view the deeper hormonal area. It is here that

measures of endocrine state, such as protein-bound iodine, are disclosed. Aberrations in hormonal state may precede changes in biochemical homeostasis. For example, the hypothyroid patient frequently demonstrates hypercholesterolemia. Hyperadrenal cortical activity is reflected by changes in blood glucose or electrolytes. Hence, hormonal imbalances may become predictive of problems in the more peripheral layers.

**Enzymes:** At the near center of the core is the enzyme pattern. Many of the two thousand known enzymes can be used for clinical purposes. For example, serum glutamic oxalacetic transaminase, popularly referred to as SGOT, is now frequently utilized as a predictive tool of impending cardiovascular disease.

**The Core Problem:** Finally, one reaches the center of the sphere which, in Figure One, is illustrated by diet. Since dietary nutrients are the building blocks from which hormones and enzymes are made, it is apparent that all of the peripheral layers reveal the effects of dietary imbalances, inadequacies, or excesses. As has been pointed out earlier, physical fitness can also be regarded as a core problem. Surely, genetics must always be considered. Finally, other central variables receiving increasing attention are pollutants, food preservatives, coffee and tea, alcohol, and tobacco consumption.

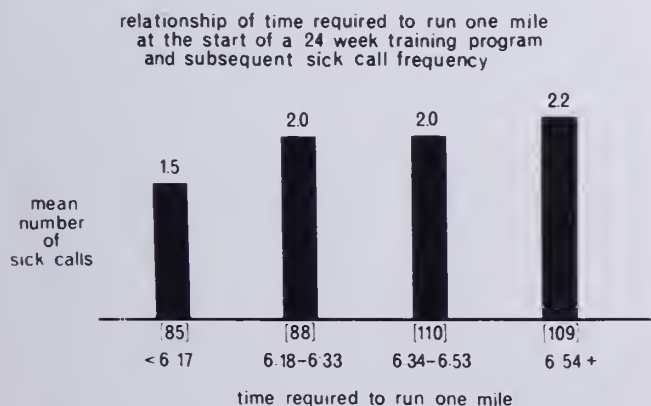
When there are no core problems and especially when optimal diet exists, all peripheral layers are in order (Figure Four). Thus, in the healthy man, all levels are in balance as shown by an optimal diet, enzyme and hormone balance, biochemical homeostasis, physiologic performance, and no peripheral symptoms and signs.

On the other hand, when there is a core problem, such as a poor diet, there are reverberations throughout all levels (Figure Five). This begins in the more central zone of enzymes and proceeds, in order, to the peripheral layers of symptoms and signs. However, it should be emphasized that this eruption from the center out requires time, and this is the incubation period for chronic disease.

### A Practical Application

Each of the diagnostic layers such as the signs, symptoms, performance, biochemistry, hormones, enzymes, and diet is interrelated with every other level. One such observation is reported here which links physical fitness as a core problem with a peripheral estimate of signs and symptoms as judged by sick call.

The Officers Candidate School at Fort Benning, Georgia, consists of an intensive twenty-four week military training program. At the very start of the course, each student is carefully graded by means of a variety of mental and physical tests. One of the many measuring procedures is the time required to run one mile. During the subsequent twenty-four week training period, a record is kept of military and medical parameters indicating the number of times each student reports for sick call. Figure Six pictorially portrays the relationship of the time required to run one mile, as shown on the abscissa, and the frequency of sick call, described on the ordinate, in 392 soldiers deemed healthy enough to be trained for officer status. The evidence is clear that those individuals who run the mile



**Figure Six.** The relationship of time required to run one mile (on the abscissa) at the start of a 24 week training period and the subsequent frequency of sick call. This suggests the predictive worth of one measure of performance (running a mile) and the more peripheral manifestations of disease.

fastest at the start of the program, in less than six minutes and seventeen seconds, are the very same persons who subsequently report least for sick call (1.5 times). Conversely, those with the longest initial scores for the mile run, greater than six minutes and fifty-four seconds, are characterized by the highest sick call frequency, 2.2 visits. Thus, those with the best performance, as judged by the mile run, subsequently demonstrate the least number of peripheral problems. Those with the poorest performance records display the most symptoms and signs.

These experimental findings are consistent with the report of a negative association between degree of exercise and death in men aged 45 to 85+ years of age. In other words, as the degree of exercise increases from none to slight, moderate, and heavy, deaths decrease progressively. Between no exercise and heavy exercise, the differences range from five to tenfold.

It should be evident that what one wishes to anticipate depends upon the layer one desires to accept as the *effect* and which layer one wishes to regard as the *cause*.

### Physiologic Versus Normal Values

Precisely what is the significance of various parameters in a predictive system depends not only upon the experimental model as just described but is also a function of what is a *physiologic* versus a *normal* value<sup>2</sup>.

The term *normal* stems from the Latin *normalis*, which means according to the pattern. Hence, in its purest sense etymologically (and this is its statistical connotation), *normal* suggests *typical*, *usual*, *average*.

The clinician usually employs the word *normal* to define the *healthy* state. For example, he frequently remarks that a patient is normal or that the blood sugar or cholesterol values are normal when he actually means that the parameter in question is within physiologic limits.

Hence, in the practitioner's mind, since *normal* implies *average* and *normal* implies *healthy* and things equal to the same thing are equal to each other, *normal* becomes interchangeable with that which is *healthy*. The simplest example that average, or normal, and healthy, or normal, are not synonymous is the fact that 95 per cent of Americans suffer with dental decay. It is, therefore, normal (meaning typical or usual) to have this problem. In other words, the average American has it. However, it is obviously not healthy or physiologic to exhibit dental caries.

Fundamentally, there are *three* techniques employed to develop standards for health and disease.

**The Epidemiologic Approach:** The most common technique for determining the so-called *normal* value is to measure the parameter in question in a large sample of presumably well individuals. Particular mention should be made that most criteria for health are generally quite arbitrary since the sample studied is, for example, an ambulatory group or hospital personnel. The data are then arrayed and generally found to fit the typical unimodal or Gaussian curve. Then, on a purely arbitrary basis, the mean and two standard deviations, namely 95 per cent of the intermediate values, are held to represent the physiologic range for the parameter under consideration.

In such a system, the assumption is made that, for example, students, employees, health examinees, and blood

bank donors are healthy. This hypothesis is not based on fact. Actually, most multiple testing programs of such persons indicate that a significant number has one or more previously undetected diseases. For example, according to the United States Department of Health, Education, and Welfare, the incidence of one or more chronic conditions, meaning illnesses, diseases, or impairments, even in young people less than 17 years old, was one in five or approximately 20 per cent in 1962-1963 and has climbed to almost one in four, in other words about 23 per cent, in 1966-1967. Hence, one must recognize that the criteria for health sampling are very arbitrary. Multiphasic screening of allegedly healthy persons indicates that one cannot make the assumption that two standard deviations, which includes 95 per cent of the population, are well. It should be abundantly evident from this brief discussion that the presently employed method of ascertaining the physiologic or so-called normal range for a diagnostic parameter is most arbitrary.

**The Sta-Ten Concept:** For the reasons offered earlier, many investigators have been concerned with the development of more meaningful standards for health and disease. For example, one technique divides the typical unimodal patterns into sta-tens which are ten units of standard deviation. The mode, according to these investigators, represents the ideal and is assigned the score of five. Values which fall 0 to 0.5 standard deviation below the mode are numbered *four* and called *low modal*, 0.5 to 1.0 standard deviation below are number *three* or *mild decrease*, 1.0 to 1.5 are assigned *two* and judged as *moderate decrease*, 1.5 to 2.0 below are listed as *one* or *marked decrease*, and 2.0 and below are numbered *zero* and represent *very marked decrease*. In conventional medicine, only values outside two standard deviations are viewed as pathologic. Similarly, the values six, seven, eight, nine, and ten are utilized for scores *above* the mode in one-half standard deviation groups.

The most obvious benefit from this system in its recognition that small variations from the mode signify the development of a pathologic process. The most apparent shortcoming of this approach is the assumption that the mode is synonymous with optimal health.

**The Symptom-Sign Free Concept:** From the earlier discussion, it is clear that there is still considerable debate as to what should be regarded as the *physiologic* limits for a particular biochemical parameter. The point has been made that the present concept of a physiologic range is developed from an analysis of *presumably* healthy subjects. Even though such persons are not obviously ill, they may, nonetheless, have an undetected disorder or exhibit symptoms and signs which are clearly not suggestive of a state of health.

It seems fair to assume that an individual *without* symptoms and *without* signs is probably healthier than one *with* clinical findings. Considering this assumption, a study is here reported of a fasting blood glucose range in a group with and without symptoms and signs (Figure Seven).

One hundred dental patients, seen for routine care, were questioned regarding symptoms and examined for signs generally recognized as indicative of diabetes mellitus. Though the main emphasis was placed upon the oral cavity, some few extraoral findings such as polyphagia, polydipsia, and polyuria, were also recorded. Each individual was also



studied by means of the classical three-hour oral glucose tolerance test. For purposes of this report, only the fasting blood glucose determinations will be considered.

An analysis of fasting blood glucose was first made for those of the original one hundred subjects free of a *single* extraoral symptom. The 82 subjects *without* polyphagia, though some may have had polyuria and/or polydipsia, showed a mean and standard deviation of  $81 \pm 21$  mgm. per cent. A similar analysis of the 82 polydipsia-free patients, though some may have reported polyphagia and/or polyuria, yielded values of  $81 \pm 20$  mgm. per cent. Finally, the 71 patients without polyuria, with or without polyphagia or polydipsia, netted a score of  $80 \pm 18$  mgm. per cent. It is clear from an analysis of those patients lacking any one of these findings that the means and standard deviations are very similar. In order to develop a simple chart, Figure Seven shows at the top only the mean and standard deviation for the 50 subjects *without* the extraoral symptoms of polyphagia, polyuria, and polydipsia. It will be noted that this relatively symptom-free group is characterized by a fasting blood glucose of  $80 \pm 20$  mgm. per cent.

In order to establish the fasting blood glucose range on a more quantifiable basis, gingival health was studied. Sixteen of the original 100 subjects demonstrated physiologic gingival hue, color, stippling, and sulcus depth around the teeth. It is important to emphasize that some of the patients may have reported one or more of the extraoral symptoms and signs previously mentioned. This group, shown as the second line from the top, characterized by healthy gingiva, showed a value of  $78 \pm 11$  mgm. per cent fasting blood glucose (Figure Seven). Line two, representing gingival health, compared to the initial analysis on line one, shows that the mean has decreased only slightly from 80 to 78, but the standard deviation has been cut in half from 20 to 11.

A similar analysis was made for the 38 subjects without the oral symptoms of gingival tenderness, dry and burning mouth. It will be noted, in line three, that the mean has remained the same at 78, but the range has decreased from 11 in line two to 7 in line three.

Similar analyses were made for the 16 subjects with no dental stigmata, that is, a full complement of teeth and no clinical tooth mobility as pictured in line four from the top, and for the 11 persons without oral roentgenographic evidence of disease as judged by no alveolar bone loss and no periodontal widening which is line five.

Finally, the means and standard deviations were derived for the groups of subjects without *combinations* of symptoms and signs. Figure Seven shows the scores for the five patients without dental stigmata *and* oral roentgenographic pathosis. This is the second line from the bottom. Also shown at the very bottom are the values for the three subjects without oral symptoms, dental signs, and x-ray evidence of pathosis.

A number of points are worthy of mention. First, two-thirds of the asymptomatic patients, in terms of extraoral findings, ranged from 60 to 100 mgm. per cent fasting blood glucose as shown on the top line. Interestingly enough, this is the presently accepted range for fasting blood glucose. Second, by employing different clinical criteria for the healthy state, the means decrease slightly and the ranges shrink dramatically. Third, by stiffening the

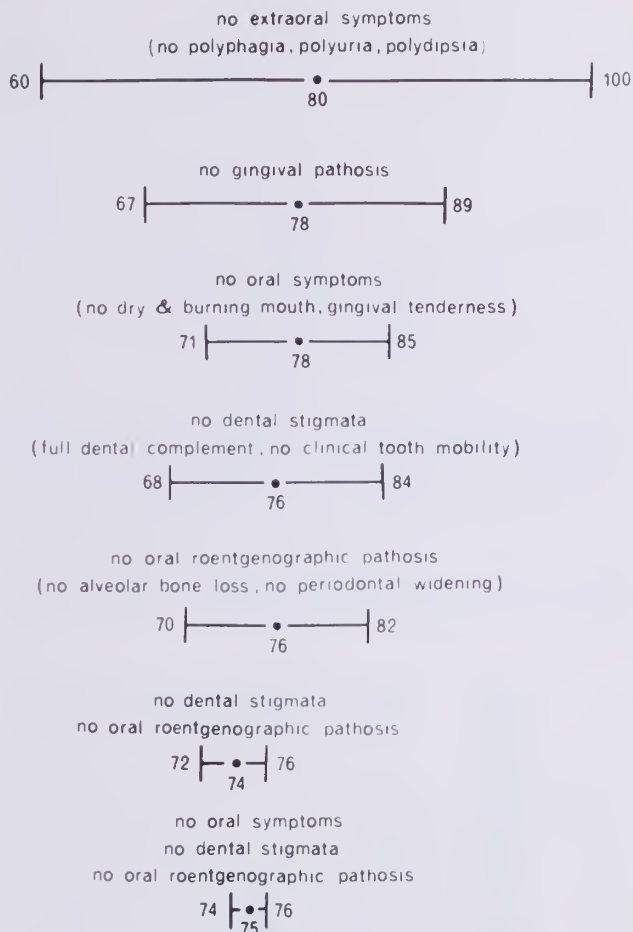
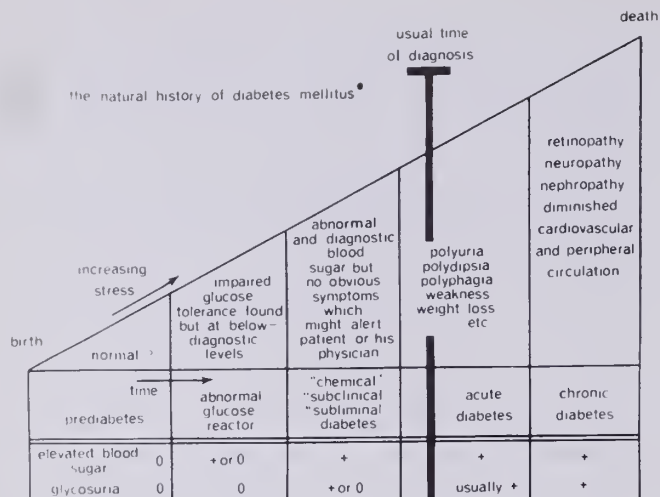


Figure Seven. The technique for the development of the physiologic range for fasting blood glucose by developing a progressively symptomless and signfree group. By this method, the range progressively shrinks.

requirements for health, namely by insisting on progressively fewer symptoms and signs, the range shrinks to almost zero. Finally, it will be noted that one runs out of people before one exhausts the parameters! This technique for the establishment of physiologic ranges has been investigated for a number of different parameters. And, in all instances, the patterns are the same.

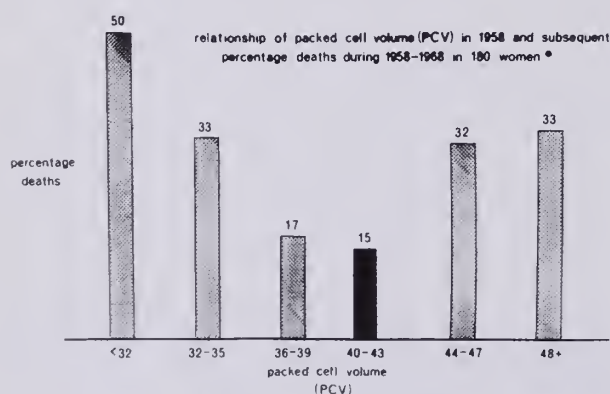
### Linear Versus Curvilinear Functions

By act, if not by word, traditional medicine is based upon a philosophy that the relationship between different parameters with regard to health and disease is a linear function<sup>3</sup>. For example, the higher the blood glucose the more pathologic is this particular parameter. This is abundantly exemplified by the usual description of the genesis of diabetes mellitus (Figure Eight). At one point, on the extreme left, there is no hyperglycemia, no glycosuria, and no clinical findings. Subsequently, there is the occasional appearance of hyperglycemia with no glycosuria or clinical symptoms and signs. In the third column, there is now chronic hyperglycemia and occasional glycosuria without clinical findings. Finally, both hyperglycemia and glycosuria are constant, and there are clinical symptoms and signs. It is at this point that, by definition, the patient



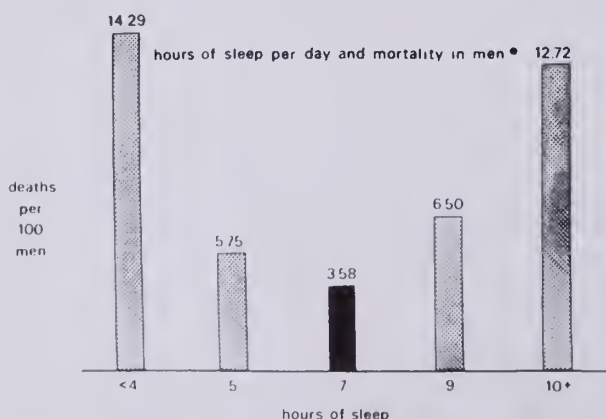
\*Krahl, L.P. When is diabetes? Med Clin N Amer 49 #4, 893-904, July 1965

Figure Eight. A classical clinical-biochemical description of the course of events in diabetes mellitus.



\*Waters, W.E., Withey, J.L., Kilpatrick, G.S., Wood, P.H.N. and Abernethy, M.  
Ten-year haematological follow-up, mortality and haematological changes  
Brit Med Jour 4 781-784, 27 December 1969

Figure Nine. The curvilinear or parabolic relationship of mortality and packed cell volume depicting the optimal hematocrit as being in the middle.



\*Hammond E.C. Some preliminary findings on physical complaints from a prospective study of 1,064,004 men and women Am J Public Health 54 #1, 11-23, January 1964

Figure Ten. The curvilinear or parabolic relationship of mortality and hours of sleep per day depicting the optimal sleep time of seven hours.

is given a diagnosis of diabetes mellitus. Three items deserve special consideration. First, the sequence of events underscores the gradation concept of health and disease. Second, the story underlines the arbitrary delineation of health and sickness. Finally, the chart emphasizes one of the common characteristics of traditional medicine, namely, that many biochemical patterns are viewed in a dichotomy. In this particular instance, the problem in traditional thinking is one of hyperglycemia versus nonhyperglycemia. The simple fact of the matter is that all biochemical parameters must be viewed as a trichotomy rather than a dichotomy. In the instance just cited, recognition is given to hyperglycemia versus nonhyperglycemia. No attention is accorded hypoglycemia even though the latter is recognized as a possible early diabetic sign.

A simple yet most graphic representation of the trichotomy concept has already been reported (Figure Nine). The packed cell volume, or hematocrit, was measured in 180 women in 1958 and subsequently evaluated with regard to mortality ten years later. Described on the abscissa are the hematocrit groups ranging, from left to right, from the low to the high scores as determined in 1958. Pictured on the ordinate are the percentage of deaths in 1968. It is abundantly evident that the highest mortality figures occur at *both* ends of the packed cell volume scale. Also, the chart shows that the individuals with the middle scores, in this case hematocrit values of 40 to 43, are paralleled by the least mortality.

Mortality and the curvilinear concept are not restricted to biochemical findings (Figure Ten). For example, in a study of over one million men and women, the men who reported approximately seven hours of sleep per night had the lowest death rate. Those who reported more or less sleep displayed progressively higher death rates.

Two points are worthy of special mention. First, many relationships are of a parabolic rather than a linear form. Additionally, the curvilinearity is a function of definition of physiologic standards (Figure Eleven). Specifically, it will be noted that the more narrow the physiologic standards, as shown by the upper curve, the more sharply defined is the parabolic picture.

The parabolic pattern is also, in part, a function of age (Figure Twelve). In the relatively young, as depicted by the lower curve, the parabola is quite flat. With advancing time, the picture becomes more sharply defined. This is clearly demonstrated in a study of the relationship of mortality in terms of number of hours of daily sleep in the light of age (Figure Thirteen). It will be noted that the physiologic sleep period becomes more progressively critical with age as judged by the progressive sharpening of the parabola.

Hence, the general statement can be made that curvilinearity is not only a function of the physiologic standards but also the time factor. Parenthetical mention should be made that this is one more reason for using relatively healthy elderly persons to determine physiologic limits since these individuals are clearly proven and successful cases.



## The Specificity of Tests

Earlier mention has been made that clinical disease usually begins with several seemingly unrelated and non-specific symptoms and signs. With time, the clinical findings increase in number and begin to localize in systems, organs, and tissues. Finally, as more time elapses, as measured by months, years, or even decades, the constellation satisfies the textbook definition of a particular disease. Therefore, one of the problems in assigning a pathognomonic role to a particular test is that there is usually an *arbitrary* definition of what constitutes a particular disease syndrome<sup>4</sup>.

The picture is further complicated by the fact that just about every test which has been studied has been shown to be related to many different disorders. One explanation for this is that most of the prevalent chronic diseases are complex metabolic dysfunctions that affect many systems, organs, and tissues. For example, a decrease in glucose tolerance is characteristic of a score of diverse and allegedly nondiabetic syndromes (Table One). For example, a reduction in glucose tolerance, or phrased another way, an elevation in blood sugar is frequently encountered with certain psychologic disorders, in carcinomatosis, hypertension, with the hyperlipidemias, atherosclerosis and arteriosclerosis, coronary heart disease, obesity, gout, and even aging. Hence, it seems more tenable that abnormal biochemical test findings in the early ill-defined incubation stages of disease are more likely a measure of the *syndrome of sickness* rather than a manifestation of a sharply defined disorder.

It is generally held that hyperuricemia is usually regarded in most clinical circles as pathognomonic of gout. This is particularly interesting since the uric acid level is now viewed as one of the predictive parameters in the coronary proneness profile. To enlarge upon the nonspecificity of this particular biochemical parameter, Figure Fourteen shows the relationship of serum uric acid, on the abscissa, and mean height of the P wave in Lead I on the ordinate in 72 presumably healthy subjects. First, it is important to note that the relationship is parabolic rather than linear. Thus, the highest and presumably the most abnormal  $P_1$  values, the stippled columns, parallel relatively hypouricemia and hyperuricemia. The smallest and probably most physiologic electrocardiographic value, the black bar, is found with serum uric acid levels of a magnitude of 4 to 5 mgm. per cent. Second, the relationship between serum uric acid and the mean height of  $P_1$  suggests that hyperuricemia is not exclusively associated with what is usually regarded as the classical picture of gout.

To demonstrate further the nonspecificity concept, Figure Fifteen pictures serum uric acid on the horizontal axis and psychologic scores, as judged by the Cornell Word Form-2 test, on the vertical axis in the same 72 presumably healthy subjects. The earlier two conclusions obtain here. First, the relationship is curvilinear rather than linear. As a matter of fact, the highest and supposedly most pathologic psychic mean score occurs in the group with hypouricemia.

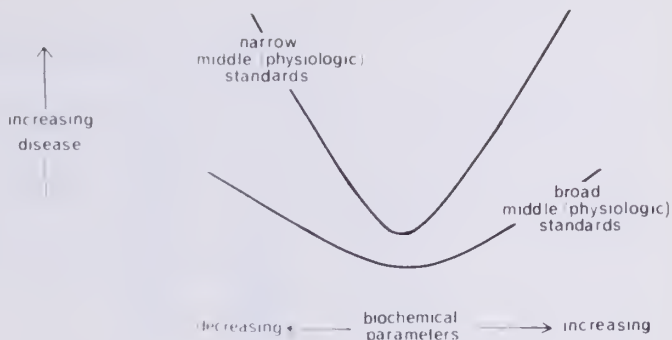


Figure Eleven. The correlation of a biochemical and clinical parameter is parabolic. The curvilinearity is in part a function of the definition of hyper-, hypo- and normo- for the biochemical technique in question.

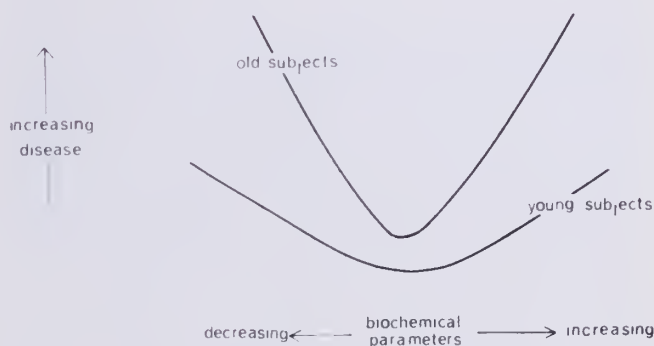
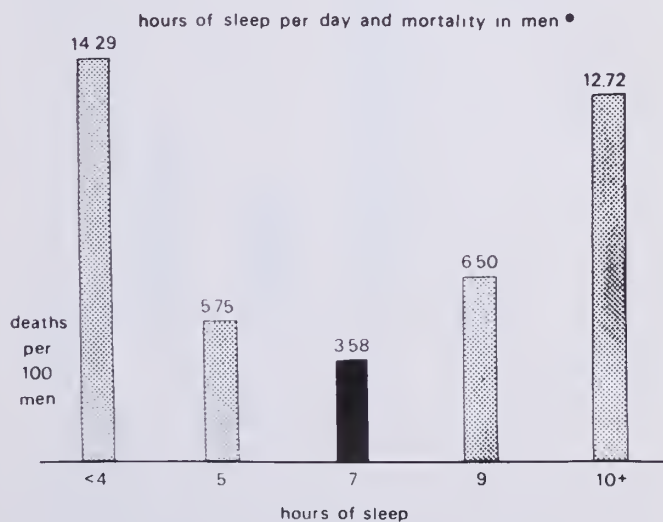


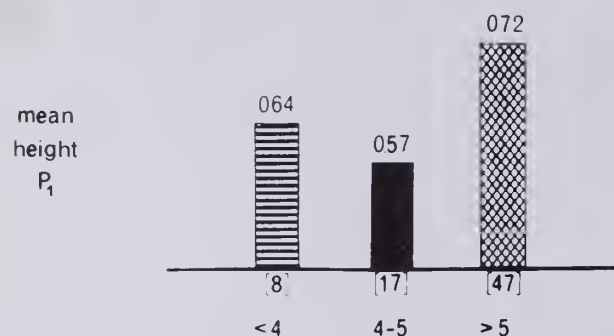
Figure Twelve. The relationship of health status and a biochemical parameter is curvilinear rather than linear as generally held. The parabolic pattern increases with advancing age.



\*Hammond EC Some preliminary findings on physical complaints from a prospective study of 1,064,004 men and women Am J Public Health 54 #1,11-23, January 1964

Figure Thirteen. The relationship between health status and a clinical parameter. Death and hours of sleep present a curvilinear pattern. The parabola becomes more sharply defined as age increases.

relationship of nonfasting serum uric acid and height  $P_1$

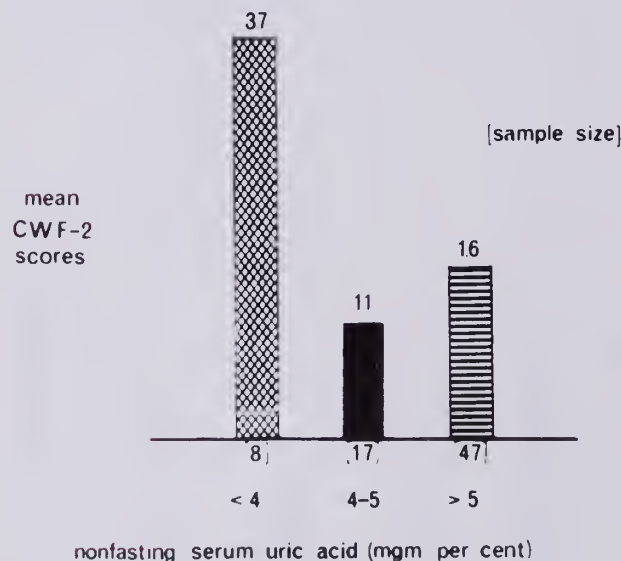


nonfasting serum uric acid (mgm per cent)

[sample size]

Figure Fourteen. The relationship of serum uric acid (on the abscissa) and the height of  $P_1$  (on the ordinate). The highest, and presumably the most pathologic  $P_1$  heights are noted with relative hyper- and hypouricemia. The lowest and probably the most physiologic  $P_1$  height (black column) is found in the middle range of serum uric acid. It is noteworthy that there is such a parallelism between serum uric acid and an allegedly nongout finding. This underlines the nonspecificity of serum uric acid.

relationship of nonfasting serum uric acid and psychologic scores



nonfasting serum uric acid (mgm per cent)

Figure Fifteen. The relationship of serum uric acid (on the horizontal axis) and psychologic scores as judged by the Cornell Word Form-2 test (on the vertical axis). The highest, and presumably the most pathologic, CWF-2 scores are noted with relative hyper- and hypouricemia. The lowest and probably the most physiologic CWF-2 score (black columns) is found in the middle range of serum uric acid. It is interesting that there is such a relationship between serum uric acid and an allegedly non-gout finding. This underscores the nonspecificity of serum uric acid.

TABLE ONE: Clinical Conditions Which May Exhibit A Reduction In Glucose Tolerance

psychologic disorders	drug suppression of ovulation
cancer	eye disorders
hypertension	skin disorders
hyperlipemias	infectious disorders
atherosclerosis and arteriosclerosis	multiple sclerosis
coronary heart disease	peptic ulcer
obesity	renal failure
gout	liver disease
pregnancy	hyperthyroidism
congenital malformations or anomalies	osteoporosis
sterility	pulmonary emphysema
	tatic douloureux
	aging

Second, here is another expression of the diagnostic nonspecificity of serum uric acid since psychologic imbalance is generally not held to be part of the gout syndrome.

### Summary

An analysis of the periphery of man, as judged by symptoms and signs, is useful in that it provides a measure of the extent of disease. However, in itself, it has little utility in a predictive medicine program. The present methods of correlation of biochemical state versus symptoms and signs so characteristic of traditional multiple testing programs are helpful in the diagnosis of classical disease. However, the predictive potential is limited. A predictive program, to fulfill its true purpose of anticipating disease, must view the total sphere and identify the relative prognostic potential of the different interrelated layers. In this connection, in one predictive system, the concentration of serum cholesterol, for example, is a sufficient predictor of a particular disease or syndrome. However, in another predictive system, the question might rightfully be asked as what are the factors which make for hypercholesterolemia. In this type of program, the emphasis would obviously be shifted from hypercholesterolemia as a predictive tool to those factors which contribute to hypercholesterolemia such as diet, physical activity, tobacco, alcohol, and coffee and tea.

Precisely what parameter should be employed for predictive purposes is, in addition, a function of what is regarded as normal, meaning average, versus what is regarded as normal, meaning physiologic.

Further, the efficacy of predictive instrument is directly related to an awareness that many functions must be regarded in a curvilinear or trichotomy frame of reference rather than the traditional linear or dichotomy approach.

Finally, the success of predictive parameters is intimately associated with the recognition that there are no biochemical tests pathognomonic of any specific disease. Rather, biochemical procedures should be viewed, more correctly, as measures of what may be called the *syndrome of sickness*.

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# **Vaginal And Cervical Cancers And Other Abnormalities Associated With Exposure In Utero To Diethylstilbestrol And Related Synthetic Hormones**

## **The Desad Project**

THE NATIONAL CANCER Institute is supporting a study of vaginal cancer and other noncancerous genital tract irregularities in offspring of mothers who received synthetic estrogens during pregnancy. The study seeks to provide answers concerning the risk to exposed offspring born after 1940 of developing cancer, or other medically important conditions, including vaginal adenosis and cervical abnormalities.

Each of the four participating institutions is identifying five hundred or more subjects with documented *in utero* exposure. Exposed daughters of different ages are being examined and followed to determine incidence and natural history of vaginal adenosis and other irregularities.

Institutions participating in this study, and the principal investigators, are: Massachusetts General Hospital, Harvard Medical School, Boston, Massachusetts, Dr. Ann Barnes and Dr. Stanley J. Robboy; University of Southern California, Los Angeles, California, Dr. Duane E. Townsend; Baylor College of Medicine, Houston, Texas, Dr. Raymond H. Kaufman; Mayo Clinic, Rochester, Minnesota, Dr. David G. Decker.

The Mayo Clinic coordinates the efforts of the institutions participating in the National Cancer Institute study. Dr. Leonard T. Kurland, Chairman of the Department of Epidemiology and Medical Statistics at Mayo, directs the study's National Coordinating Center.

Project Director at the National Cancer Institute, Division of Cancer Control and Rehabilitation, is Dr. Mary Ann Sestili, Room 6A07, Blair Building, 8300 Colesville Road, Silver Spring, Maryland 20910. Telephone number is (301) 427-7477.

## **I. What is diethylstilbestrol (DES)?**

DES (Diethylstilbestrol or stilbestrol), a synthetic estrogen-type hormone, was first synthesized in the late 1930's. During the 1940's many physicians throughout the United States and other countries prescribed this substance for pregnant women. Several studies suggested that in complications of pregnancy such as bleeding, threatened miscarriage, or diabetes, this treatment improved salvage of the fetus.

Although its use in pregnancy has been discontinued, DES remains a useful agent for certain menopausal symptoms, certain cases of carcinoma of the breast and prostate, and a few other clinical problems. A list of DES-type drugs are on pages 10-11.

## **II. Why were DES-type drugs used in pregnancy?**

Nearly one pregnancy in five results in spontaneous abortion. Various studies suggested that DES-type drugs given to women likely to have miscarriages decreased the incidence of abortion. Additional investigation indicated that pregnant women with more than one prior miscarriage, diabetes, or toxemia of pregnancy could also benefit from DES administration. These findings were widely publicized during the 1940's and 1950's, and prenatal administration of DES-type drugs was extensive.

Later studies disclosed that the administration of DES during pregnancy was less effective than initially thought. Additional clinical research and development of newer compounds gradually diminished their use.

## **III. What is the cancer problem associated with "in utero" exposure?**

In 1971, Drs. Arthur L. Herbst, Howard Ulfelder and David Poskanzer at Massachusetts General Hospital and Harvard Medical School reported a link between maternal DES therapy during pregnancy and the later occurrence of clear-cell adenocarcinoma of the vagina in female offspring exposed to the drug *in utero*. This initial report was soon confirmed by others.

Soon after the discovery of the initial cases, a Registry of Clear-Cell Adenocarcinoma of the Genital Tract in Young Females was established by Dr. Herbst and Dr. Robert E. Scully with support from the National Cancer Institute and the American Cancer Society. It now contains varying amounts of data on almost 300 cases from the United States and abroad. Registry address is MARP, Room 303, 5481 Maryland Avenue, Chicago, Illinois 60610.

The patients have ranged in age from 7 to 28 years at the time of diagnosis.

Documentation of exposure to DES-type hormones has been established in two-thirds of the fully investigated case histories. Of the vaginal adenocarcinoma cases, more than 80 percent are known to have been exposed to DES-type hormones.

Because DES-type hormones were not administered to some of the mothers of these cancer patients, factors other than maternal hormone administration also may play a role in the etiology of these cancers.

In all cases for which precise treatment dates are

Compiled by Professional and Public Relations Committee of the DESAD Project (Diethylstilbestrol and Adenosis) of the Division of Cancer Control and Rehabilitation National Cancer Institute and by the Office of Cancer Communications, NCI National Institutes of Health Department of Health, Education, and Welfare.

available, the drug was initiated before the 18th week of gestation. Dosages and duration of therapy varied widely. However, as little as 1.5 mg. DES administered daily throughout pregnancy was found in one case history to be associated with subsequent cancer in female offspring. Administration of the drug in varying amounts for a week or more during the first trimester also was associated with the subsequent development of cancer.

Cancers related to DES-exposure have not been reported in male offspring.

Although the exact number of pregnant women treated with DES or chemically similar compounds during pregnancy is unknown, it has been estimated to be as many as two million. The risk of developing adenocarcinoma in exposed females under 30 years of age appears to be minimal, in view of the large exposed population and the very rare incidence of the disease so far reported. However, as exposed females grow older, the incidence of cancer related to DES-type drugs may change.

#### IV. Noncancerous Irregularities

Early in their investigation, Dr. Herbst and associates noted that most of the vaginal and cervical cancers in the exposed females were associated with vaginal adenosis (the presence of glandular epithelium in the vagina). Benign adenosis is found histologically in over 97 percent of vaginal clear-cell adenocarcinomas, whether or not a history of DES-type drug exposure *in utero* is confirmed. Vaginal adenosis is rare in normal (unexposed) young women.

The results of examinations of females exposed *in utero* to DES-type drugs have been reported in several studies. More than a third of those who were exposed in the first four months of gestation have vaginal adenosis, and more than two-thirds have cervical ectropion (the presence of glandular tissue on the portio vaginalis of the cervix).

Other abnormalities seen in these examinations, such as transverse vaginal and cervical ridges, also may be associated with intrauterine exposure to DES-type drugs. These are described by a variety of names—hood, pseudopolyp, rim, collar, cockscomb cervix.

#### V. If the patient was exposed to DES-type drugs, what should be done?

All asymptomatic girls who were exposed *in utero* should receive a thorough pelvic examination at menarche or if they have reached 14 years of age. Younger girls should be examined if they develop abnormal bleeding or discharge. Whenever prenatal exposure is probable, and there are symptoms of discharge, further investigation is imperative, regardless of the patient's age. This investigation should not be concluded until it is certain that no lesion is present.

Before the examination is undertaken, the entire procedure should be thoroughly discussed with the patient (and her mother or father if she is a minor). The examination should include inspection and palpation, Papanicolaou smear (cervix and vagina), and an iodine staining test of the entire cervix and vagina.

Abnormal areas, including those that do not stain with iodine, should be biopsied. This procedure can be performed in the physician's office with small biopsy instruments and without significant discomfort.

For the very young patient who has symptoms that require investigation, anesthesia may occasionally be required before an examination. A small speculum permits adequate visualization of the vagina without undue discomfort in younger patients.

With asymptomatic females, if adequate examination is not possible at the initial visit, vaginal tampons should be used for a few months to allow an adequate examination later without discomfort.

Colposcopy is a useful adjunct to this examination, but it is not essential. Utilizing its low power magnification to examine the vagina and cervix, the physician can identify areas of glandular tissue (adenosis) in the vagina or on the cervix. This identification permits directed rather than "blind" biopsies. Used in conjunction with the iodine staining test and selected biopsy, colposcopy permits precise recording of observed abnormalities and their appraisal at fixed intervals.

#### VI. Followup Examinations

The patient exposed to DES-type drugs should be followed on a regular basis. After a normal initial examination, annual pelvic examinations with cervical and vaginal cytology and iodine staining are probably adequate. If any abnormalities are noted during the initial evaluation, more frequent followup examinations are suggested (every 3 to 6 months, depending on the severity of the findings).

#### VII. Management of vaginal and cervical irregularities other than clear cell adenocarcinoma

Locally destructive measures such as cauterization, cryosurgery, or excision can be utilized if atypical changes such as marked squamous dysplasia or carcinoma *in situ* of the vagina or cervix are found on biopsy.

Optimal management of nonmalignant lesions in females exposed to DES-type drugs *in utero* is uncertain. At the present time, no case has been reported in which vaginal adenosis has progressed to cancer under direct observation. Careful followup appears at present to be the most prudent approach to DES-exposed subjects without carcinoma.

There is no evidence to date indicating that use of oral contraceptives by the DES-exposed population would be undesirable. However, they add further hormonal variables to a complex situation and are one more aspect of the problem requiring more information.

The presence of adenosis is not a contraindication to future pregnancy if the woman desires to have children.

#### VIII. Cancer Diagnosis

The cancers reported in the Registry have been found more often on the cervix or upper anterior vaginal wall than elsewhere. They usually are elevated, soft and friable, with a tendency to invade surrounding tissue early and metastasize through the lymphatic system. The ratio of vaginal to cervical site of origin (classification



of the Cancer Committee of the International Federation of Gynecology and Obstetrics) has been approximately two to one.

## IX. Cancer Therapy

Decisions regarding mode and extent of therapy in these young women are difficult in themselves and further complicated by emotionally charged issues. Both surgery and high energy radiotherapy potentially can cure the disease. Cancers associated with DES-type drugs may develop in young women primarily in tissues of Mullerian origin—the upper portion of the vagina and the cervix.

Treatment should be highly individualized and is best accomplished by physicians experienced in treating gynecologic cancers.

DES-type drugs that may have been prescribed to pregnant women:

### Nonsteroidal Estrogens:

Benzestrol	Mikarol forti
Chlorotrianisene	Milestrol
Comestrol	Monomestrol
Cyren A	Neo-Oestranol I
Cyren B	Neo-Oestranol II
Delvinal	Nulabort
DES	Oestrogenine
DesPlex	Oestromenin
Diestryl	Oestromon
Dibestil	Orestol
Dienestrol	Pabestrol D.
Dienoestrol	Palestrol
Diethylstilbestrol Dipalmitate	Restrol
Diethylstilbestrol Diphosphate	Stil-Rol
Diethylstilbestrol Dipropionate	Stilbal
Diethylstilbenediol	Stilbestrol
Digestil	Stilbestronate
Domestrol	Stilbetin
Estilben	Stilbinol
Estroben	Stilboestroform
Estroben DP.	Stilboestrol
Estrosyn	Stilboestrol DP.
Fonatul	Stilestrate
Gynben	Stilpalmitate
Gyneben	Stilphostrol
Hexestrol	Stilronate
Hexoestrol	Stilrone
Hi-Bestrol	Stils
Menocrin	Synestrin
Meprane	Synestrol
Mestilbol	Synthoestrin
Methallenestril	Tace
Microest	Vallestril
Mikarol	Willestrol

### Nonsteroidal Estrogen — Androgen Combinations

Amperone	Metystil	Tylandrill
Di-Erone	Teserene	Tylosterone
Estan		

### Nonsteroidal Estrogen — Progesterone Combination Proavidium

### Vaginal Cream — Suppositories with Nonsteroidal Estrogens

AVC cream with Dienestrol

Dienestrol cream

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"LET'S PLAY DOCTOR. I'LL BE THE DOCTOR  
AND YOU BE THE MALE NURSE."

# History Of

## The Medical Association of The State of Alabama

*(Editor's Note: In the March, April and May, 1936, issues of THE JOURNAL, Dr. Cannon's brilliant historical manuscript about the history of MASA appeared. It was entitled "Alabama's Eighty-Nine Years of Medical Organization" and recounted those early years of creation, growth and expansion.*

*The manuscript, of course, carried events up to 1935 and as far as can be determined, the history of MASA has not been updated since that time.*

*Dr. Cannon was a former secretary-treasurer of the Association and served as state health officer from 1928-1929. He passed away December 5, 1962. The Association's prestigious medical reporter award, given*

by  
Douglas L. Cannon, M.D.



*each year to "recognize a reporter who has shown outstanding ability in the reporting of medical news," was named in his honor.)*

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### Third In A Series

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#### First Appropriation For Public Health

"In the session of the General Assembly," reported the Board in 1879, "which adjourned only a few weeks ago, the State has again shown her high appreciation of this Association by appropriating," February 12, 1879, "...the sum of three thousand dollars a year, for the uses of this Association in its capacity of State Board of Health; and in a spirit of generous confidence in us, which we believe will prove to be as wise as it is generous, has entrusted the details of its expenditure to our discretion."

"It now becomes incumbent upon us to enter practically upon the work of the supervision of the sanitary interests of the State...In furtherance of this end, we respectfully recommend the adoption of ...'Ordinance Creating a Health Officer for the State of Alabama,' " submitted by the Board.

#### Dr. Jerome Cochran Elected First State Health Officer

The ordinance adopted, Dr. Jerome Cochran was elected, on Friday, April 11, 1879, Health Officer for a period

of five years, with a salary fixed at \$1,500.00.

#### The Association In The Eighties

An act "To provide for the supervision of the public health...in the several counties of the State of Alabama," approved February 28, 1881, assigned certain duties to County Board of Health; and granted authority to them to elect a County Health Officer for their respective jurisdictions and fix his term of office. There was thus shaped another link in the scheme of organization that already had signalized Alabama among the states of the Union.

"In June last, I attended the meeting of the American Medical Association, in New York," said Dr. Wm. H. Anderson, of Mobile, in his message as President in 1881, where, "among several circles of physicians I had the great pleasure to hear The Medical Association of the State of Alabama spoken of in highest terms. The peculiar features of our organization had evidently impressed themselves on the medical faculty of states far distant

from us, and among these were some of the oldest states in the Union...This was a great compliment, and I felt so proud of it that I determined, on my return home to write every physician in the State whose name I could get, and urge him at once to join his County Medical Society, so that, by our united efforts, we may keep Alabama in the front rank of similar organizations."

#### Disconcerting Legislation

Greenville and the Butler County Medical Society were hosts to the Association in 1885, the year the State Board of Censors found it necessary to report that "during the recent session of the General Assembly ten different bills," seven of them unfriendly, "were introduced affecting in some way the interests of the medical profession and the status and work of the State Board of Health."

Speaking editorially of the emergency, the *Tuscaloosa Gazette* said:

"Our attention has been called in the legislative proceedings to the introduction of several bills, which, if passed by the General Assembly, must effect most disastrously the present health laws of the State. Alabama has been peculiarly fortunate in the statutory provisions regulating the practice of medicine within her borders, and in protecting and promoting the sanitary interests of her citizens. Her laws are conceded to be more progressive in these respects than those of any other state, and have been alike beneficial and far reaching in their results, both in guarding the public health and elevating the standard of medicine in Alabama.

The successful execution of these laws must depend, in a large degree, upon the efficiency of the State Health Officer, and if the bill to abolish this office by withholding the appropriation should become a law, it is plain that the most disastrous consequences will follow. We do not believe, however, that our legislators can be influenced to take this backward step and thus



sacrifice all the material progress that the State has made in sanitary science."

So serious did the situation appear, and believing "the supreme hour had come for the Association to exert its influence for the preservation of its fame and even its organic integrity," the President, Dr. Benji H. Riggs, of Selma, requested the Board of Censors and the Counsellors of the Association to meet in extraordinary session in Montgomery, at noon on January 29th, 1885. "It was a source of pride and great gratification to me," commented Dr. Riggs, "to see present so many earnest and influential members of the Association, who, at a moment's warning, as it were, left their engrossing private duties and came to the defense of their Association...Not one of the seven unfriendly bills succeeded in passing either house; some were reported on unfavorably, and some died an untimely death in committee."

Among those who attended the annual session of 1886, Anniston, April 13-16, was Dr. William A. Love, of Atlanta, appointed by the President of the Medical Association of Georgia to "look thoroughly into the workings of the Alabama Association," the President being possessed of an "exceeding anxiety" to have Alabama's methods understood by the profession of Georgia. "It will be seen," reported Dr. Love after dealing with the organization in some detail, "that the Medical Association of Alabama is a representative body, that its working is at once unique and complex, its very complexity giving it strength. It has united the profession of the State as one man; its influence for good is felt throughout its jurisdiction. From irregulars it has met opposition. These for a time played upon the prejudices, the credulity, and gullibility of the people, and brought what at times seemed to be formidable opposition to it, but its intelligent officers...have so far guided it safely to a condition of prosperity and power that would seem to vouchsafe a successful future....



Dr. William O. Baldwin  
AMA President (1869)



Dr. James S. McLester  
AMA President (1935)

They are united in peace, they are working in harmony, and their social and political standing and influence is such that it is a sufficient guarantee that in the future, as in the past, they will be amply sustained by the enactments of the General Assembly in all their efforts for the common good of a confiding community."

On the fortieth anniversary of the birth of the Association sixty-two County Medical Societies were affiliated with the organization. Only Covington, Geneva, Marion and Winston remained to be organized, excepting Houston County which was not created until February 9, 1903. Said the Board in its report of 1887: "The aggregate membership of these societies is between nine hundred and one thousand. If all the doctors in the organized counties were members of their county societies it would swell our membership to twelve or thirteen hundred....Marion, Winston, Covington, and Geneva...are all sparsely populated counties, and only one of them contains doctors enough to make a Board of Examiners. This one, Marion, we hope to be able to add to the roll at our next session. For the others we will perhaps have to wait a few years longer."

The meeting of 1888 was held in Montgomery under the presidency of Dr. Edward Henry Sholl, of Birmingham. Commenting, particularly on the events of Tuesday evening, April 10th, the *Montgomery Advertiser* said:

"Rarely have the citizens of Montgomery been called on to pay respect and courtesy to a finer body of men

than those composing The Medical Association of the State of Alabama. That our people appreciate the distinguished visitors, was evidenced by the splendid audience assembled at the (Montgomery) Theatre to greet them and to hear the annual oration by Dr. Benjamin James Baldwin, of Montgomery. His subject, 'Health, and Physical Education as a Means of Promoting It,' was able and scholarly, and should be read and thoughtfully considered by the people at large."

It was at this meeting that complete organization of all County Medical Societies was reported. "Four new county societies have been organized," said the Board, "which completes the organization of the whole State...This is the crowning glory of twenty years of assiduous and persistent effort. Without doubt the...Association...of Alabama is now by far the most powerful medical organization in the United States, and so far as we know, the most powerful in the world...Our past history is a continuous record of successful effort; and our future is bright with the promise of better things."

#### The Association In The Nineties

When the Association convened in Selma, April 18-21, 1893, it was the sad duty of the President, Dr. James Thomas Searcy, of Tuscaloosa, to make reference to the passing of Dr. Peter Bryce, who died August 14th, 1892. "At his death the sense of a great loss pervaded the whole State. In accordance with the general sentiment,

and as a mark of public respect, the Governor ordered the flag at half-mast on the Capitol at Montgomery, and the people and the press of the State uniformly mourned his loss." Bryce Hospital will ever remain an enduring monument to him who died "with his mind clear to the last, and with his hand still on the machinery of that much loved institution, the product of his life work."

## Dr. Cochran Dies

And then: "On the 17th of August 1896, Dr. Jerome Cochran, State Health Officer...died in the City of Montgomery." At the Atlanta meeting of the American Medical Association, last May," commented Dr. H. A. Moody, of Bailey Springs, Lauderdale County, on the occasion of the memorial meeting held in Selma, April 22nd, 1897, "I noticed with alarm the extreme feebleness of Dr. Cochran, and suggested to him that perhaps he might find comfort or relief among the hills of North Alabama during the ensuing summer. The idea seemed to please him, and in July he came to Florence to a meeting of the Lauderdale County Medical Society. From there he accompanied me to my home. From the time of his coming to that of his departure he refused to entertain any hope of recovery. Gently, but firmly, he declined all medication, saying that his was not a case for drugs; that it was progressive in its nature and had already destroyed all sensation of hunger; and that this was the beginning of the end...

"Thus calmly and cheerfully did his great, brave soul face the approaching mystery before which meaner spirits shrink and tremble. 'I have done my duty as I saw it, and I am ready.' "

The expression of the State Board of Censors was appropriately brief: "During the last year a great calamity befell us in the death of our leader (Jerome Cochran), the man who conceived this organization, and, above all others, built it up and made it what it is. Let us hope that his work was so well done that, although he is no longer here to guide us with his wisdom and to animate us with his courage, we may be able to push on and reap that splendid fruition for which he so earnestly worked and eagerly longed."

## Dr. Sanders Becomes Second State Health Officer

Dr. William Henry Sanders, of Mobile, was chosen to succeed Dr. Cochran, thus becoming Alabama's second State Health Officer.

## Jerome Cochran Lecture Founded

First among recommendations made by Dr. L. L. Hill, of Montgomery, in his annual message as President of the Association in 1898, was that future presidents appoint some eminent medical man, either in Alabama or from a distance, to deliver an address to be known as the "Jerome Cochran Oration." In keeping therewith, the Board submitted, and the Association adopted, the following ordinance:

*Be it Ordained by The Medical Association of the State of Alabama, That in accordance with the spirit of a recommendation made by Dr. L. L. Hill, President, there be and is hereby established as a mark of the high esteem, veneration and respect which we cherish for the memory of Dr. Jerome Cochran, a lecture to be known and denominated as 'The Jerome Cochran Lecture,' said lecture to pertain to some subject in biology, medicine, surgery or hygiene, and to constitute the regular order of business at 11 o'clock on the second day of the annual meetings of this Association....*

And from that day to this it has been so! ●

TO BE CONTINUED

CURRENT MORBIDITY STATISTICS—1977  
Frederick S. Wolf, M.D., Director, Bureau of Preventable Diseases

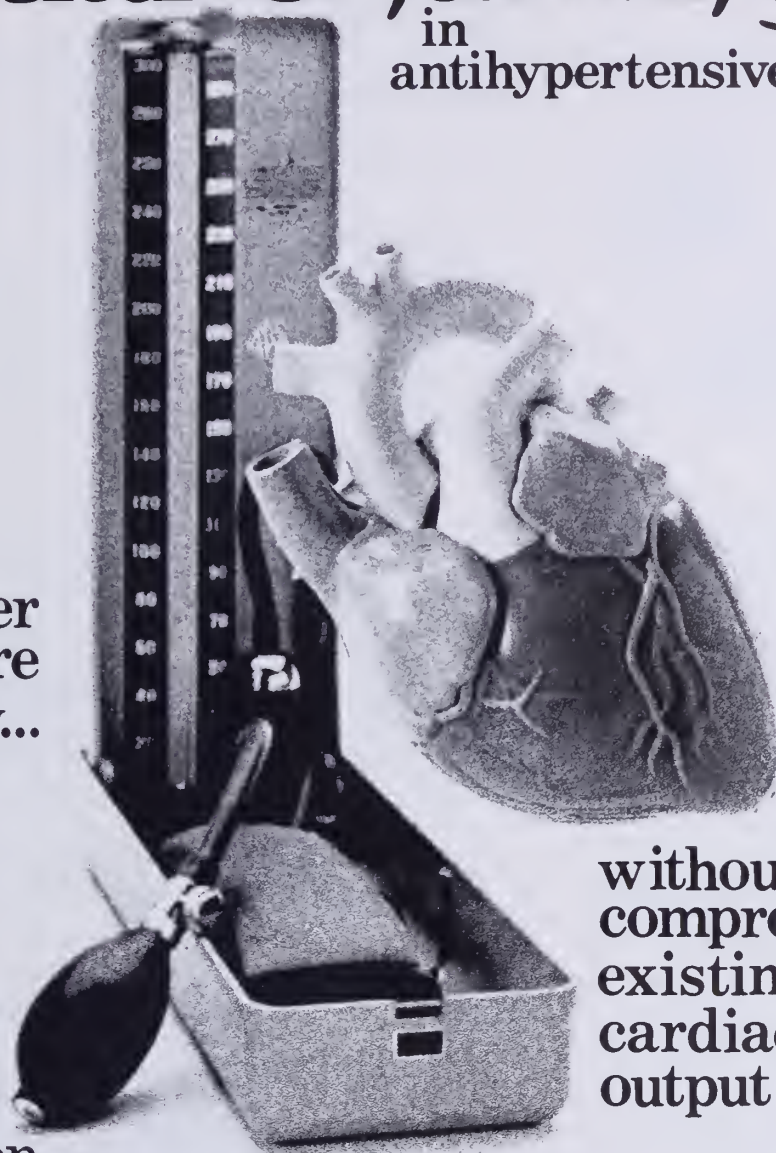
	December	January	* E.E. January
Tuberculosis	63	63	76
Syphilis	55	15	34
Gonorrhea	2,275	1,361	1,044
Chancroid	0	0	0
Typhoid fever	0	0	0
Salmonella	20	31	17
Undulant fever	1	0	0
Shigella	18	9	7
Amebic dysentery	0	0	0
Scarlet fever & strep. throat	414	411	514
Diphtheria	0	0	0
Whooping cough	0	0	2
Meningitis	15	8	8
Tularemia	0	0	0
Tetanus	0	1	0
Poliomyelitis	0	0	0
Encephalitis	9	0	5
Smallpox	0	0	0
Measles	0	0	0
German measles	1	1	4
Chickenpox	212	169	66
Mumps	44	42	61
Hepatitis	34	31	41
Typhus fever	0	0	0
Rocky Mt. spotted fever	1	0	0
Malaria	0	0	1
Rheumatic fever	3	7	9
Rheumatic heart	17	16	12
Influenza	26	27	3,035
Pneumonia	297	384	511
Rabies—Human cases	0	0	0
Pos. animal heads	0	0	0



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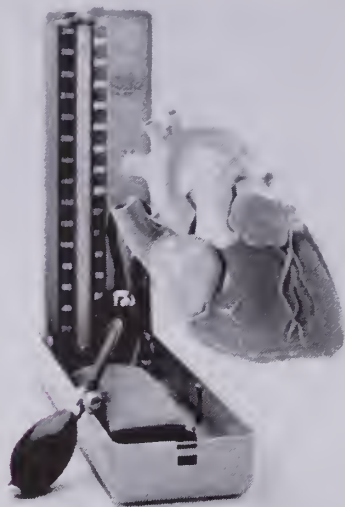
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For a brief summary of prescribing information, please see following page.

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cardiac function—  
cardiac output is  
usually maintained

**Contraindications:** Active hepatic disease, such as acute hepatitis and active cirrhosis; if previous methyldopa therapy has been associated with liver disorders (see Warnings); hypersensitivity.

**Warnings:** It is important to recognize that a positive Coombs test, hemolytic anemia, and liver disorders may occur with methyldopa therapy. The rare occurrences of hemolytic anemia or liver disorders could lead to potentially fatal complications unless properly recognized and managed. Read this section carefully to understand these reactions.

With prolonged methyldopa therapy, 10% to 20% of patients develop a positive direct Coombs test, usually between 6 and 12 months of therapy. Lowest incidence is at daily dosage of 1 g or less. This on rare occasions may be associated with hemolytic anemia, which could lead to potentially fatal complications. One cannot predict which patients with a positive direct Coombs test may develop hemolytic anemia. Prior existence or development of a positive direct Coombs test is not in itself a contraindication to use of methyldopa. If a positive Coombs test develops during methyldopa therapy, determine whether hemolytic anemia exists and whether the positive Coombs test may be a problem. For example, in addition to a positive direct Coombs test there is less often a positive indirect Coombs test which may interfere with cross matching of blood.

At the start of methyldopa therapy, it is desirable to do a blood count (hematocrit, hemoglobin, or red cell count) for a baseline or to establish whether there is anemia. Periodic blood counts should be done during therapy to detect hemolytic anemia. It may be useful to do a direct Coombs test before therapy and at 6 and 12 months after the start of therapy. If Coombs-positive hemolytic anemia occurs, the cause may be methyldopa and the drug should be discontinued. Usually the anemia remits promptly. If not, corticosteroids may be given and other causes of anemia should be considered. If the hemolytic anemia is related to methyldopa, the drug should not be reinstituted. When methyldopa causes Coombs positivity alone or with hemolytic anemia, the red cell is usually coated with gamma globulin of the IgG (gamma G) class only. The positive Coombs test may not revert to normal until weeks to months after methyldopa is stopped.

Should the need for transfusion arise in a patient receiving methyldopa, both a direct and an indirect Coombs test should be performed on his blood. In the absence of hemolytic anemia, usually only the direct Coombs test will be positive. A positive direct Coombs test alone will not interfere with typing or

cross matching. If the indirect Coombs test is also positive, problems may arise in the major cross match and the assistance of a hematologist or transfusion expert will be needed.

Fever has occurred within first 3 weeks of therapy, sometimes with eosinophilia or abnormalities in liver function tests, such as serum alkaline phosphatase, serum transaminases (SGOT, SGPT), bilirubin, cephalin cholesterol flocculation, prothrombin time, and bromsulphalein retention. Jaundice, with or without fever, may occur, with onset usually in the first 2 to 3 months of therapy. In some patients the findings are consistent with those of cholestasis. Rarely fatal hepatic necrosis has been reported. These hepatic changes may represent hypersensitivity reactions; periodic determination of hepatic function should be done particularly during the first 6 to 12 weeks of therapy or whenever an unexplained fever occurs. If fever and abnormalities in liver function tests or jaundice appear, stop therapy with methyldopa. If caused by methyldopa, the temperature and abnormalities in liver function characteristically have reverted to normal when the drug was discontinued. Methyldopa should not be reinstituted in such patients.

Rarely, a reversible reduction of the white blood cell count with primary effect on granulocytes has been seen. Reversible thrombocytopenia has occurred rarely. When used with other antihypertensive drugs, potentiation of antihypertensive effect may occur. Patients should be followed carefully to detect side reactions or unusual manifestations of drug idiosyncrasy.

**Use in Pregnancy:** Use of any drug in women who are or may become pregnant requires that anticipated benefits be weighed against possible risks; possibility of fetal injury can not be excluded.

**Precautions:** Should be used with caution in patients with history of previous liver disease or dysfunction (see Warnings). May interfere with measurement of: uric acid by the phosphotungstate method, creatinine by the alkaline picrate method, and SGOT by colorimetric methods. Since methyldopa causes fluorescence in urine samples at the same wavelengths as catecholamines, falsely high levels of urinary catecholamines may be reported. This will interfere with the diagnosis of pheochromocytoma. It is important to recognize this phenomenon before a patient with a possible pheochromocytoma is subjected to surgery. Methyldopa is not recommended for patients with pheochromocytoma. Urine exposed to air after voiding may darken because of breakdown of methyldopa or its metabolites.

Stop drug if involuntary choreoathetotic movements occur in patients with severe bilateral cerebrovascular disease. Patients may require reduced doses of anesthetics; hypotension occurring during anesthesia usually can be controlled with vasopressors. Hypertension has recurred after dialysis in patients on methyldopa because the drug is removed by this procedure.

**Adverse Reactions:** *Central nervous system:* Sedation, headache, asthenia or weakness, usually early and transient; dizziness, lightheadedness, symptoms of cerebrovascular insufficiency, paresthesias, parkinsonism, Bell's palsy, decreased mental acuity, involuntary choreoathetotic movements; psychic disturbances, including nightmares and reversible mild psychoses or depression.

*Cardiovascular:* Bradycardia, aggravation of angina pectoris. Orthostatic hypotension (decrease daily dosage). Edema (and weight gain) usually relieved by use of a diuretic. (Discontinue methyldopa if edema progresses or signs of heart failure appear.)

*Gastrointestinal:* Nausea, vomiting, distention, constipation, flatus, diarrhea, mild dryness of mouth, sore or "black" tongue, pancreatitis, sialadenitis.

*Hepatic:* Abnormal liver function tests, jaundice, liver disorders.

*Hematologic:* Positive Coombs test, hemolytic anemia. Leukopenia, granulocytopenia, thrombocytopenia.

*Allergic:* Drug-related fever, myocarditis.

*Other:* Nasal stuffiness, rise in BUN, breast enlargement, gynecomastia, lactation, impotence, decreased libido, dermatologic reactions including eczema and lichenoid eruptions, mild arthralgia, myalgia.

**Note:** Initial adult dosage should be limited to 500 mg daily when given with antihypertensives other than thiazides. Tolerance may occur, usually between second and third month of therapy; increased dosage or adding a thiazide frequently restores effective control. Patients with impaired renal function may respond to smaller doses. Syncope in older patients may be related to increased sensitivity and advanced arteriosclerotic vascular disease; this may be avoided by lower doses.

**How Supplied:** Tablets, containing 125 mg methyldopa each, in bottles of 100; Tablets, containing 250 mg methyldopa each, in single-unit packages of 100 and bottles of 100 and 1000; Tablets, containing 500 mg methyldopa each, in single-unit packages of 100 and bottles of 100.

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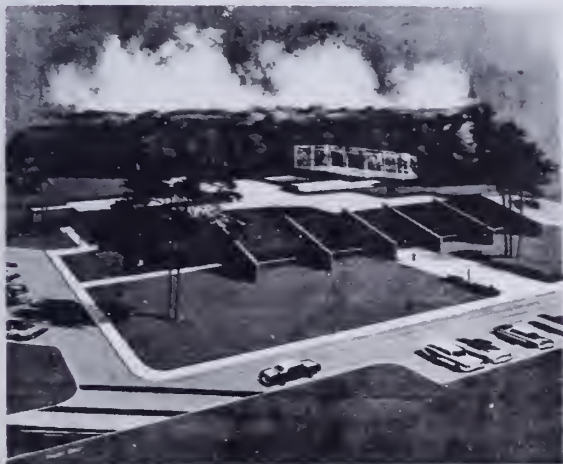
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Championship. We won 7-6!



June 15: Today, I graduated!

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## How We Stand The Cold

Prepared by the AMA

Human beings are essentially semi-tropical animals. Our bodies at rest and unclothed are designed to maintain their internal temperature effortlessly with the thermometer at about 85 degrees Fahrenheit. But built into us are effective methods of coping with much lower temperatures.

We achieve cold-weather comfort in part by generating more heat in our internal furnaces, and in part by conserving that heat.

The most important source of internal heat are the muscles. They use about 70 percent of the food energy they consume, at work or at play, in heat generation. Under average conditions, says Dr. L. P. Herrington, director of research for the Pierce Laboratory of Hygiene at Yale University, body muscles produce enough heat to boil a quart of freezing-cold water every hour—and when you wave your arms or stomp your feet while waiting in the cold, you are stoking your muscles furnaces to a still higher level of heat production.

The extent to which muscular activity enables you to ward off the cold has been strikingly illustrated by the experiments of Dr. Alac C. Burton and his associates for Canada's National Research Council, which show that the amount of clothing needed to keep you comfortably warm when you're sitting quietly at 70 degrees will also keep you warm at 40 degrees if you're walking briskly—or at five degrees below zero if you're running.

If you don't ward off the cold by exercising voluntarily, your muscles take over and warm themselves by shivering involuntarily. Under extreme conditions of exposure, intense shivering may even save you from freezing to death. "It's largely shivering which explains why many are cold but few are frozen," one physiologist has said.

Since your muscles need to produce more heat in winter, they use up more food energy; but nature makes allowance for this by turning up your appetite a few notches in cold weather. On the average, you eat about 15 calories more per day for every one-degree drop in the temperature. Soldiers allowed to eat as much as they please when stationed in the tropics at 92 degrees select a diet totaling about 3000 calories daily; in the Arctic or Antarctic at 25 below zero, their calorie intake rises spontaneously to nearly 5000.

Your tastes for particular foods also change during cold weather. Explorers report, for example, that men who carefully trim all fat off their meat back home crave and eat much of this prime source of heat on polar expeditions.

Instead of increasing your heat production in cold weather, you can achieve much the same result by conserving what heat there is. One simple method of heat conservation is familiar to everyone. When you're cold, you instinctively curl up into a ball, thus cutting much of the surface area through which your internal heat is dissipated.

Less familiar are your automatic blood and skin changes. Ordinarily, the blood and skin act as a cooling system like the water and radiator of your car. Hot blood emerging

from the internal organs is cooled by flowing through the skin at the rate of 50 to 75 gallons an hour. When you're chilled, however, many small blood vessels in your skin close up, reducing the rate of flow to one fifth of normal, so that your body "turns pale with cold." The net effect of this bloodflow restriction is to convert your skin from a radiator for dissipating heat into a blanket for conserving it.

The efficiency of this skin blanket depends in part upon the thickness of the fat layer beneath it. In general, people with well-distributed fat deposits survive extreme cold better than their thinner fellows, which may explain why most successful channel swimmers have been generously upholstered. But fat people aren't necessarily more comfortable in the cold; for the nerve endings which complain "I'm cold" to the brain are themselves located near the surface of the skin; they may actually end up colder than the thin man's—and sending out more insistent messages of complaint—if they are insulated from internal sources of heat by layers of fat.

These skin nerve endings, incidentally, appear to be superior in design to most similar devices developed by engineers and scientists. They are sensitive to sudden changes in temperature. When you step outdoors on a cold day they signal the change to your brain immediately, long before your skin has actually chilled to an uncomfortable level. And when you've been outdoors in the cold long enough so that heat production and heat loss are in balance, they send an "I'm comfortable" message to the brain even though their actual temperature has dropped off half a dozen degrees.

Conserving body heat depends in part on the materials with which your body or clothing makes contact. Thus the tile floor of your bathroom feels colder than the bathmat to your feet, even though both are the same temperature; heat flows more rapidly from your skin to a good heat conductor like tile.

Quiet air, fortunately, is a poor conductor of heat—much poorer than water, for example. The human body, which maintains its heat balance without effort in still air at 85 degrees, requires water at over 90 degrees for a similar balance. A man may die of exhaustion after 60 minutes in ice-cold water; he can live much longer in air at the same temperature. Wool socks and boots keep your feet warm at sub-zero temperature while they're dry; but if water seeps in, your toes will soon start to numb. The mother who steps outside for a minute to determine how cold it is, then bundles five-year-old Billy up in layers of wool before sending him out to play, is not being a thoughtful, cautious mother. She has forgotten that outdoor air feels much colder than it is when you first step into it. And she has forgotten that Billy is going to run and jump, thus increasing his internal heat production many times over. As a result, Billy is soon perspiring in his heavy togs. He sits down to rest. His internal heat production falls while his heat loss increases due to the dampness of his clothing.



Soon Billy comes home with teeth-a-chatter, chilled to the bone. "I should have put an extra sweater on him," his mother tells herself.

A wiser mother sends a child out for strenuous play in relatively light clothing, but with adequate protection for his hands and feet; and she'll remind him to come in for something warmer if he begins to feel cold.

Still air is an excellent insulating material, but moving air quickly carries heat away with it. Even a breeze blowing at five miles an hour carries away about eight times as much body heat as still air. The winter uniform of a soldier, for example, loses about a quarter of its insulating efficiency when he's walking briskly rather than standing, because breezes are generated within his clothing which carry off heat.

**The loosely tailored sealskin and walrus-skin** clothing of the Eskimos is nearly ideal for cold weather. When an Eskimo chases his quarry in a hunt, the chill Arctic air flows into and out of his flapping garments to prevent overheating. Later, when he sits down to rest, his clothing settles around him and achieves an insulating efficiency hard to surpass.

Most of us think of wool as ideal for heat conservation, and scientific studies have confirmed its excellence. The insulating effect is not achieved by the fibers themselves but by the air trapped among the fibers. Wool's superiority to cotton in this respect is due largely to its springiness. Damp or dry, it tends to regain its thickness more readily after compression, and to trap some more air. The suitability of some synthetic fibers for cold-weather use depends similarly on their ability to spring back into shape when compressed by bodily movements.

**Fur also insulates** by means of the dead air trapped among the hairs; and many animals are able to regulate their heat balance by expanding or compressing their fur. This effect they achieve by means of tiny muscles which erect the hairs and thus thicken the furry layer when the animal begins to chill. We human beings, though we lack fur, still have the same hair-erecting muscles in our skin; and these muscles still contract when we're suddenly chilled, producing goose pimples.

Understanding of the importance of thickness in clothing has enabled scientists to improve gloves for Arctic wear. Our fingers are partially curved most of the time, yet glove manufacturers tailor gloves to fit the fully extended hand. As a result, ordinary gloves are compressed to a fraction of their normal thickness at the joints and knuckles where our fingers bend—and heat leaks out. Military gloves, to minimize the compression, are now shaped to the natural curve of the relaxed fingers.

**Keeping warm while asleep** offers a particular challenge, for internal heat production falls during sleep. No doubt you have more than once had the experience of falling asleep in a comfortably heated room and awakening to find that you're cold and shivering. The room hasn't chilled while you slept; instead your heat production has dropped. It's therefore wise to cover yourself with something when you lie down to take a nap even though you're sure you won't need it.

Electric blankets may seem like an exception to the general rule that bedding and clothing are designed to conserve your own internally generated heat; an electric blanket feels as if it were actually sending heat to your skin. But this is an illusion; such a blanket, rarely reaches the temperature of your skin. Like any ordinary blanket, what it really accomplishes is to slow down the loss of your internal heat. The chief advantages of the electric blanket are three. It warms itself, so that you don't have to curl up and shiver in order to warm it initially from your own inner heat resources. It provides a maximum of heat conservation with a minimum of weight. And a good electric blanket adjusts itself automatically to changes in outer temperature, so that you don't have to add a blanket or take one off as the air around the bed chills or warms.

**How much cold can the human body survive?** Dorothy Mae Stevens was found unconscious, almost unclothed in a Chicago alley one winter morning in 1951. She had apparently lain there all night and her internal temperature had fallen to 64.4 degrees—34 degrees below normal. The hospital to which Miss Stevens was taken saved her life through good nursing care and the use of stimulants, blood plasma, oxygen, antibiotics, anti-blood-clotting drugs, pressure bandages and other medical methods. Even more astounding was the 1955 case of two-year-old Vickie Davis, who survived after being found unconscious in her night clothes with an internal temperature of 60 degrees Fahrenheit.

Naturally the adverse effects of exposure to severe cold when the body and clothing are dry are less severe than when wet. It makes a big difference.

All water doesn't freeze at the same temperature. Ordinary fresh water freezes at 32 F. while ocean water, which is salty, freezes at 27.9 F. An article in the British Medical Journal stated that a sailor falling into the Arctic Ocean had no chance of survival.

**If you're caught in sub-zero temperatures and reach shelter** chilled to the bone with nipped fingers, toes, cheeks, nose or ears, what should you do about it? Don't follow the ancient suggestion to rub the frost-bitten parts with snow or ice. Recent research has shown that the immediate application of gentle warmth leaves you with less tissue damage and less likelihood of infection or gangrene. The victim should be brought into a warm room as soon as possible, given a warm drink, and either wrapped in warm blankets or else placed in a tub of warm—not hot—water. Water is faster, for just as you lose more heat from your body in cold water, so your body absorbs heat more rapidly from warm water. Too much heat should be avoided: don't use a heat lamp or hot-water bottle; don't expose frost-bitten areas to a hot stove. And don't rub or massage a frozen finger, toe or ear; but after the part is warmed, encourage the victim to exercise his fingers and toes.

The best approach to frostbite, however, is to prevent its occurrence in the first place. Dress warmly enough. Dress dryly enough. Exercise to keep warm, especially your toes and fingers. Don't drink alcoholic beverages or smoke during or immediately before severe exposure. And don't be one of those foolhardy heroes who haven't sense enough to come in out of the cold. ●

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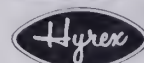
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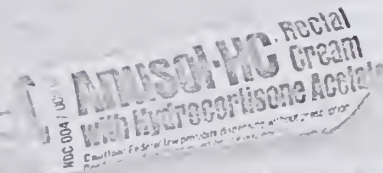
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# Continuing Medical Education

## REPORT ON THE 73RD CONGRESS ON MEDICAL EDUCATION

JANUARY 28-30, PALMER HOUSE, CHICAGO, ILLINOIS

George D. Oetting, Ed.D.  
Director

I attended this meeting in January as a useful introduction to my new educational duties, believing that members of the Association would be interested in hearing about the current concerns of medical educators throughout the nation. What follows is not a comprehensive report, but rather some personal notes on what I feel would be of interest to Alabama physicians.

Dr. Cecil G. Sheps, Vice Chancellor of Health Sciences, University of North Carolina, noted in his keynote address that more money and more doctors may not solve our current health problems. Too much time, he maintained, is being spent on curing diseases and not enough on the human and public issues. A gap exists between what is taught and what is really needed in the environment of the patient. He predicted that primary care will assume a greater importance in the future.

Many speakers, including Dr. Charles A. LeMaistre, Chancellor, University of Texas System, cited evidence of the growing influence of federal spending power in the medical area. Over 100,000 employees, he pointed out, are now hired to issue federal guidelines and 1-4% of school operating budgets are used to comply with governmental regulations.

The increasing importance of CME as a requirement for state licensing was noted by Dr. John Morton, President of the State Medical Boards. At present, at least 18 states require the completion of a specified amount of CME for licensure and the number of mandatory states continues to grow. Many associations, specialty boards and other groups are also making CME mandatory. Most of these requirements have come about just in the past two years.

Many papers on various aspects of the evaluation of medical educational programs were presented. Suggestions on improving audits and reports on the development and success of specialty tests were among the highlights in this area. Several speakers pointed out a major evaluation problem area in CME. We do not have, they maintain, any real solid evidence that CME makes any real difference in the performance of physicians! It is very difficult to get a valid and accurate measurement of doctor performance "before" and "after" CME. Defining CME outcomes that are really measurable is a very tough job, and one of the big challenges in the future development of CME.

Changes in the thrust of hospital services was the focus of Dr. Jack Hall, director of a hospital in Indianapolis. An analysis of changes in his hospital from 1965-75 revealed these shifts:

- a. A greatly increased demand for services by an educated public.
- b. A decrease in time spent in hospital by patients.
- c. A great increase in specialized services and intensive care units.
- d. A four-fold increase in budget; yet a *ten-fold* increase in patients leaving the hospital in good health.

It's time he says, to tell people about our successes in providing better services as shown above.

Dr. Richard A. Palmer, AMA President, outlined his serious concern over state and federal intervention in many areas of medicine. The recent activities of the Federal Trade Commission particularly have been directed into somewhat new "territory." FTC officials, he relates, appear to view the medical profession as a trade subject to rules of commerce. As such, they view such things as limited medical school enrollments as restricting trade. Dr. Palmer maintains, on the other hand, that medicine is a profession not a trade and should not be subject to FTC regulation. He also cited recent AMA success in removing some of the more objectionable provisions of the medical manpower act.

The Congress closed with a presentation by an Alabamian, Joyce Lannin, who is a consumer advocate from Birmingham. She expressed the concern of many about the rising costs of medical care which she estimates will reach \$1000 per person per year by 1980. Her major interests were in explaining the comprehensive health service plans for a region or area which are now or soon will be in effect throughout the country. Planning for these, she relates will involve many people, and the emphasis will be on the total "big picture." Doctors will need to broaden their perspective, too much emphasis, she feels has been on "sick cure" rather than "health care."

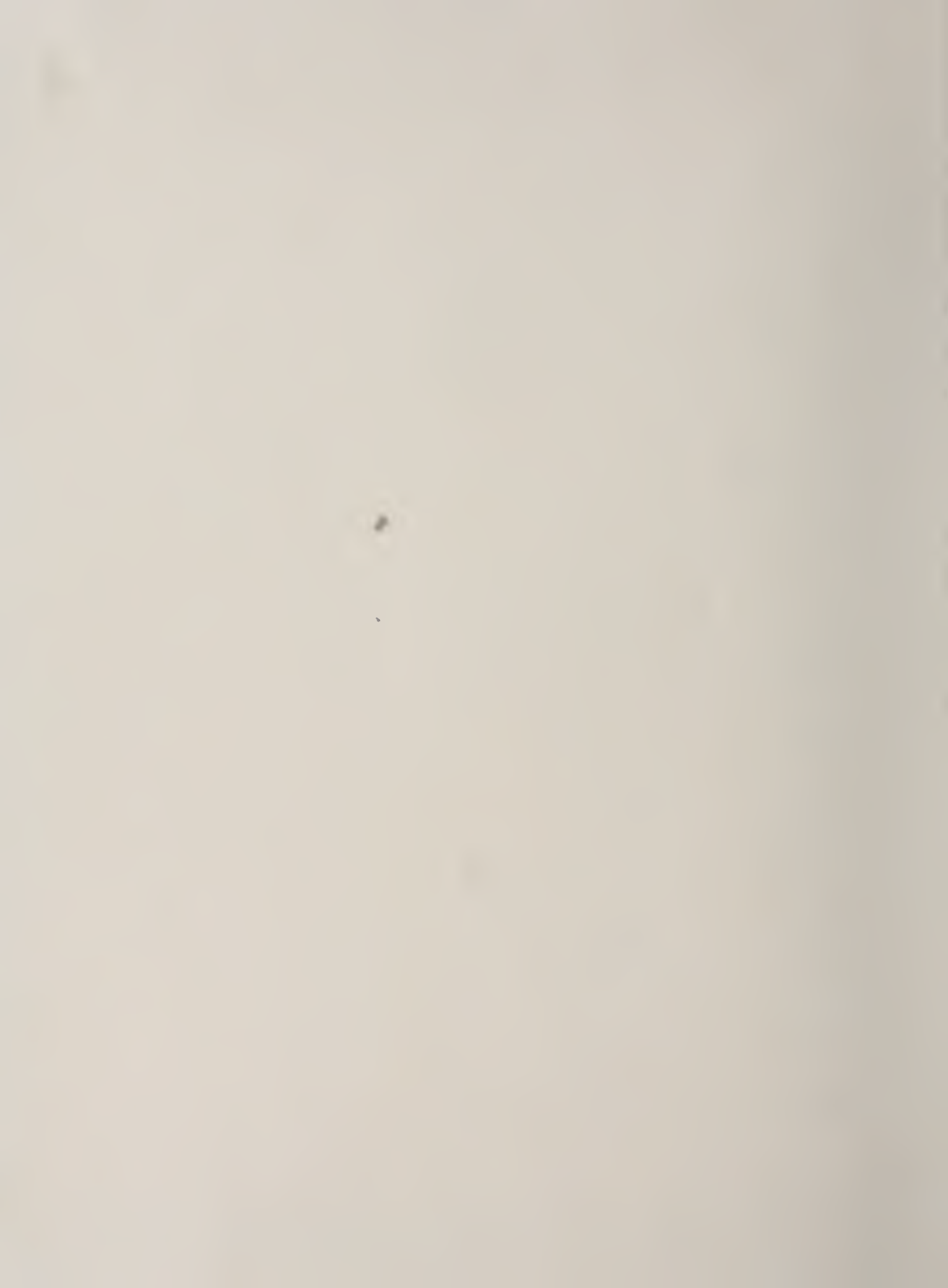
In closing, I feel that this Congress gave me an excellent overview on many areas of concern in medical education which have relevance for Alabama. I met many people in many different offices and positions and I hope to use these people and their ideas as resources in improving the educational programs within MASA. I look forward to working with you in these efforts. ●

## GALLUP POLL RATES PHYSICIANS ON TOP

No organization rates higher than the AMA in public credibility, according to a recent Gallup poll. The poll tested the public's belief in communications of all types from government agencies, labor unions, and professional and trade associations.

The AMA ranked 6.8 on a ten-point scale, while the average for professional associations was 5.1, for government agencies 5.7, and for labor unions 5.4.

In one portion of the poll the public demonstrated its belief that AMA actions are in the public interest by giving the Association a high 6.6 rating. This feeling of trust was supported in another Gallup poll in which 71% of the public said it had a great deal or a fair amount of confidence in physician organizations to propose fair and workable health programs. ●





## Digest of actions of the State Board of Censors

*The State Board of Censors, at its regular meeting on February 16, 1977, took the following actions:*

- Approved the Financial Statement for the period ending January 31, 1977, which shows receipts in the amount of \$168,410.29, and disbursements in the amount of \$124,73.02.
- Authorized Mr. Richard C. Whitaker to attend Medico-Legal Symposium to be held in San Francisco.
- Authorized up to four representatives, members of staff or Board of Censors, to attend the AIA Washington Meeting to be held March 20-21, 1977.
- Authorized that the request for clarification of dues for physicians in Fellowships be referred to the Jefferson County Medical Society for an opinion.
- Authorized \$300 to be contributed for the continuation of the Council on Hypertension.
- Approved Mr. Conner's request for permission to retain outside technical expertise (Mr. Henry Amerson) at \$400 per month plus expenses to develop, produce and direct audio-visual seminars for loss prevention, medical assistants practice management, etc. The time period is to be left open subject to performance.
- Nominated to the Blue Cross-Blue Shield Board of Directors (to replace E. E. Camp, M.D. and James A. Davis, Jr., M.D.) Carl A. Grote, Jr., M.D., Huntsville, and William A. Leitner, M.D., Birmingham.
- Authorized that the Digests of Actions for District Caucuses be received as information and referred to the appropriate Reference Committees.

- Received as information Dr. Rice's outline for the 1977 Orientation Program.
- Directed Mr. Conner and the Public Relations Department to work with Mrs. John Taylor to obtain information relating to a proposed health education TV spot with specific recommendations for a spot and estimated cost to promote health education programs in the schools.
- Directed MASA to participate in a combined statewide news release to be issued by Alabama Medical Review, Inc. regarding PSRO.
- Authorized MASA to jointly sponsor with the Alabama Hospital Association and Alabama Medical Review, Inc. (in an amount up to \$150) a reception to be held during a March 9-10 meeting of HEW Regions IV and VI.
- Disapproved the two possible recipients chosen for the William Henry Sanders Award by the Council on Public Affairs because they do not meet the set criteria for the Award as established. Approved the selection of recipients for the remaining Awards.
- Received as information a report regarding *Journal* advertising changes and improvements.
- Received as information the report of the Governmental Affairs Department.
- Received as information the Report of the Insurance Department.
- Directed that at least two copies of a film concerning diving in shall water be purchased for distribution on statewide television and for use at county medical society meetings.

## Digest of actions—State Committee of Public Health

*The State Committee of Public Health, at its meeting on February 16, 1977, took the following actions:*

- Confirmed the reelection of Charles Konigsberg, Jr., M.D., as Health Officer of the West Alabama District, effective January 2, 1977, for a five-year term.
- Confirmed five Deputy Registrars for Vital Statistics for Marengo, Monroe, Shelby and Jefferson Counties.
- Approved the Statewide Family Planning Project for FY 1978.
- Promulgated and adopted Primary Drinking Water Regulations effective June 24, 1977.
- Approved a revision of the Procedures Manual for Section 1122 Program effective January 19, 1977, and a definition and public notice schedule, effective February 16, 1977.
- Received a report on the status of nursing homes indicating there are currently 18,824 beds in service, 1,226 under construction with a Certificate of Need, 165 without Certificates of Need, and 808 bed Certificates of Need issued, but not under construction.
- Approved Initial Insurance of Assurance for Need for three facilities.
- Extended Assurance of Need for one facility — Traylor Nursing Home, Roanoke.
- Gave favorable findings and recommendations to two facilities of the Carraway Methodist Medical Center, one in Bessemer and the other in Norwood, with stipulations.
- Approved amendments to Certificate of Need Bill.
- Approved a revision of the Hospital Licensure Bill.
- Approved a reduction in the Medicaid benefits to make

up a shortfall of funds in the next six months of the fiscal year. These reductions include: limits on inpatient hospital days; decreased payments to nursing homes; authorized the retrieval of "current financing" from hospitals in this fiscal year; reduced payments to all non-institutional providers; eliminated optional categories of eligibles receiving optional State supplementation payments; and further provided for cuts to limit hospital outpatient visits to 12 per year; limit physician visits in office, outpatient clinic or home to 12 per year; limit emergency room visits to bona fide emergencies; eliminate inpatient care in psychiatric hospitals, eliminate eyeglasses for adults; retain a ceiling on payment for skilled nursing care.

- Was advised that the cash flow problem of State money has resulted in more than \$10 million in bills that are currently owed but cannot be paid until State revenues have been received and are released.

- Was advised that the Governor's Budget for Medicaid proposed for 1978 is \$50,562,000 and the appropriation for the remainder of the Health Department was \$12,450,000 which includes a 6% increase to allow for inflation over present programs.

- Was advised that two cultures of Influenza A virus have been identified in Tuscaloosa and one positive serology for A virus in a 13-year-old female in Mobile and a positive serology for B Influenza in a 16-year-old male in Greenville have been reported. (Currently in the State there are approximately 300,000 doses of bivalent influenza vaccine.

CONTINUED ON PAGE 61

## Auxiliary

Mrs. George F. Scofield  
President



## STAMP OUT PERSONAL POLLUTION

Thomas Carlyle said, "Always there is a black spot in our sunshine — the shadow of ourselves." Each of us is responsible for his own good health, or the lack of it. We decide what food we eat, what exercise we take, whether or not we smoke or drink. We decide to seek or not to seek medical care or to have periodic checks upon our bodies.

As physicians entrusted with the care of the health of our communities and as spouses seeking to educate others to obtain and to maintain good health, we should exemplify to the people of our communities proper health habits ourselves.

Just as pollution from outside kills the fish of the sea, so our own self-pollution is responsible for 50% of our health problems. These stem from such self-inflicted causes as drinking, smoking, drug abuse, fad dieting, obesity, reckless driving, eating junk foods and carelessness concerning rules of safety. This responsibility for our own health cannot be legislated. No state or national agency can guarantee health. It is our own choice.

"Do as I say and not as I do" or "Medicine is to give and not to take." Does this remind you of our attitude toward our own health habits? Those people we seek to treat and to educate could, in turn, say to us, "Practice what you preach." People do look to physicians and their families for good and proper health habits.

We pollute ourselves and endanger our lives and health by smoking. Smoking is a contributing factor in over 360,000 deaths in the United States each year. A smoker has 10 times more chances of getting lung cancer than a non-smoker. Smoking is an important factor in death from heart disease.

The drug abuse problem is one which strikes at us all. The physician and his family are even prime risks. The youngster sees his parents solving many problems with pills. In our medicine bags and chests there is an abundance of samples which are too easily available. Many physicians' spouses treat themselves with this jumble of samples of the latest and best remedies. And — horror of horrors — we even treat our friends and neighbors with our favorite headache and cold remedy! We need to have a more awesome attitude for the consequences of drugs and their misuse.

Alcohol abuse is another example of self-pollution — a useless habit gaining control over our lives. Who can pick the person who cannot stop with one or two drinks? Alcoholism is a growing menace — especially among teenagers and women. It is the number three killer, after heart disease and cancer.

Another means of body pollution is in overeating or making the wrong choices of food. Unlike tobacco, alcohol, and drugs, food is a necessity of life. We all must eat and because of this fact it takes more discipline to eat correctly than to abstain from the consumption of these other pollutants.

Someone wrote these lines:

"He was going to be all a mortal should be —  
Tomorrow.

And all that he left when living was through  
Was a mountain of things he intended to do."

So we say to each other — "Heal thyself."

A handwritten signature in dark ink, appearing to read "Pat Scofield". The signature is stylized with a large, sweeping "P" and a cursive "at".

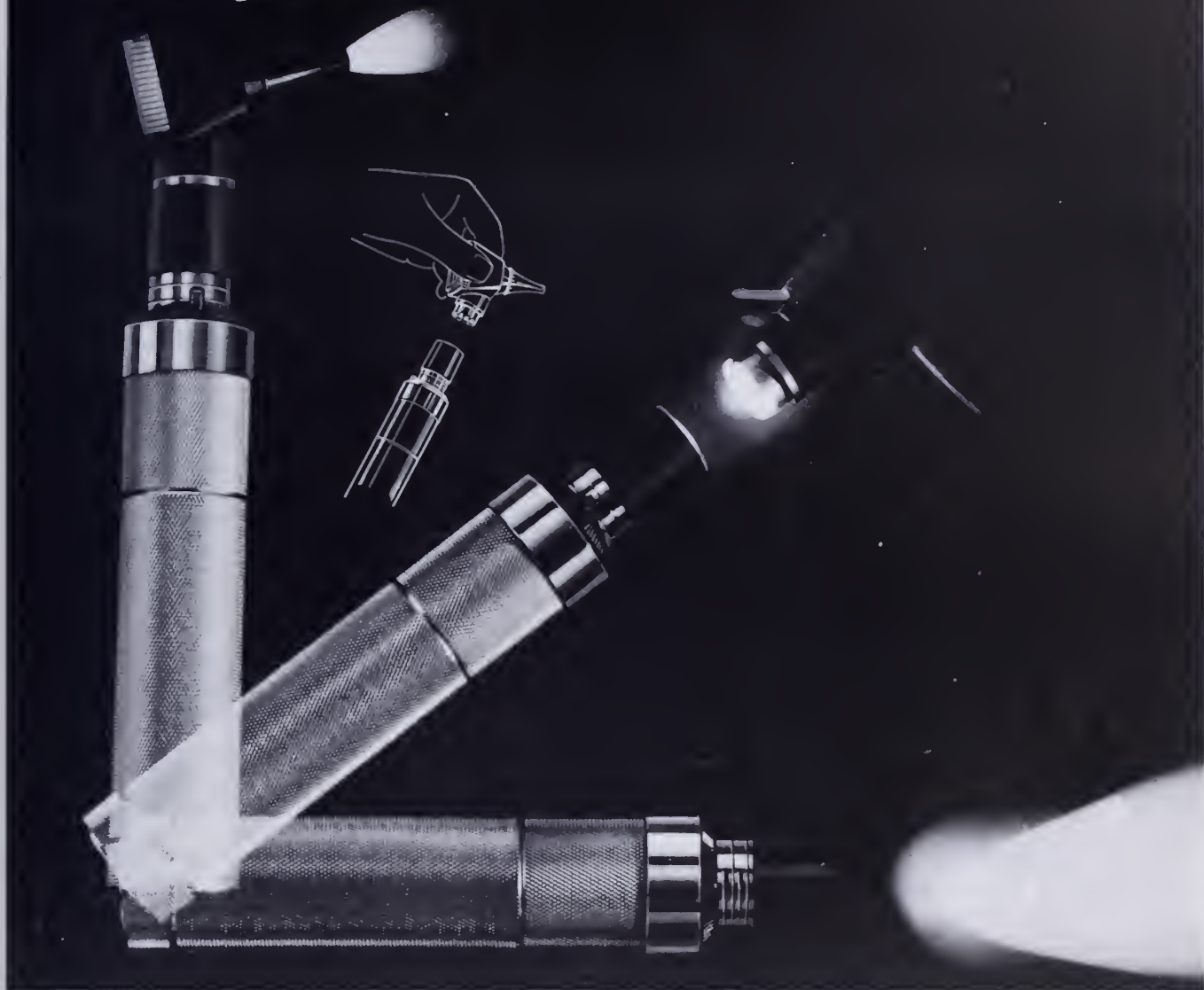
Pat Scofield

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Each 5 ml teaspoonful contains 32.5 mg theophylline, 6 mg ephedrine HCl, and 2 mg phenobarbital; the alcohol content is 15%.

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T-GP-74-B/W



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### TEDRAL® Elixir

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**Description.** Tedral: each tablet contains 130 mg theophylline, 24 mg ephedrine hydrochloride, and 8 mg phenobarbital.

Tedral SA: each tablet contains 180 mg anhydrous theophylline (90 mg in the immediate release layer and 90 mg in the sustained release layer); 48 mg ephedrine hydrochloride (16 mg in the immediate release layer and 32 mg in the sustained release layer); 25 mg phenobarbital in the immediate release layer.

Tedral Elixir: each 5 ml teaspoonful contains 32.5 mg theophylline, 6 mg ephedrine hydrochloride, and 2 mg phenobarbital; the alcohol content is 15%.

**Indications.** Tedral, Tedral SA, and Tedral Elixir are indicated for the symptomatic relief of bronchial asthma, asthmatic bronchitis, and other bronchospastic disorders. They may also be used prophylactically to abort or minimize asthmatic attacks and are of value in managing occasional, seasonal or perennial asthma.

Tedral SA (Sustained Action) offers the convenience of b.i.d. dosage.

Tedral Elixir is convenient for persons who may have difficulty in swallowing tablets.

These Tedral formulations are adjuncts in the total management of the asthmatic patient. Acute or severe asthmatic attacks may necessitate supplemental therapy with other drugs by inhalation or other parenteral routes.

**Contraindications.** Sensitivity to any of the ingredients; porphyria.

**Warnings.** Drowsiness may occur. PHENOBARBITAL MAY BE HABIT-FORMING.

**Precautions.** Use with caution in the presence of cardiovascular disease, severe hypertension, hyperthyroidism, prostatic hypertrophy, or glaucoma.

**Adverse Reactions.** Mild epigastric distress, palpitation, tremulousness, insomnia, difficulty of micturition, and CNS stimulation have been reported.

**Average Dosage.** *Prophylactic or Therapeutic.*

Tedral: *Adults*—One or two tablets every 4 hours. *Children*—(Over 60 lb) one-half the adult dose.

Tedral SA: *Adults*—One tablet on arising and one tablet 12 hours later. Tablets should not be chewed. *Children*—Not established for children under 12.

Tedral Elixir: *Note:* One teaspoonful is equivalent to one-quarter Tedral tablet. *Children*—One teaspoonful per 30 lb body weight, every 4-6 hours, unless prescribed otherwise by physician. Should be given to children under 2 years of age only with extreme caution. *Adults*—One to two tablespoonfuls every four hours.

**Supplied.** Tedral: White, uncoated scored tablets in bottles of 24 (N 0047-0230-24), 100 (N 0047-0230-51) and 1000 (N 0047-0230-60). Also in Unit Dose—package of 10 x 10 strips (N 0047-0230-11).

Tedral SA: Double-layered, uncoated, coral/mottled white tablets in bottles of 100 (N 0047-0231-51) and 1000 (N 0047-0231-60). Also in Unit Dose—package of 10 x 10 strips (N 0047-0231-11).

Tedral Elixir: Dark red and cherry-flavored in 474 ml (16 fl oz) bottles (N 0047-0242-16).

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Full information is available on request.

## AMA SCHEDULES WORKSHOPS FOR HOSPITAL MEDICAL STAFFS

The AMA will conduct a series of six regional workshops for hospital medical staff leaders of the present and future during 1977. The first workshop will be held April 22-23 in San Francisco (Fairmont Hotel).

The two-day meetings have been designed to help medical staff leaders learn managerial skills needed to carry out the increasing responsibilities they face in developing bylaws, rules, and regulations; cooperating with other hospital groups to improve patient care; evaluating quality of medical care; and resolving conflicts that may arise between the hospital medical staff and the board of trustees and administration or within the medical staff itself.

Additional workshops will be held June 10-11 in Atlanta; Sept. 16-17 in Columbus, Ohio; Sept. 23-24 in Philadelphia; Oct. 7-8 in Chicago, and Nov. 4-5 in Dallas.

Registration is limited. To receive further information, contact the Department of Hospitals and Health Facilities, AMA, 535 N. Dearborn St., Chicago, Illinois 60610. ●

## MAMMOGRAPHY TRAINING OFFERED

The University of Texas System Cancer Center, M.D. Anderson Hospital and Tumor Institute offers a formal course in MAMMOGRAPHY TRAINING FOR THE EARLY DETECTION OF BREAST CANCER on a continuing basis. Presented under the aegis of the American College of Radiology and National Cancer Institute, the course provides continuing education for practicing radiologists, radiologists-in-training, residents, other interested physicians, and technologists, registered or in-training, in film mammography, xeroradiography, or thermography.

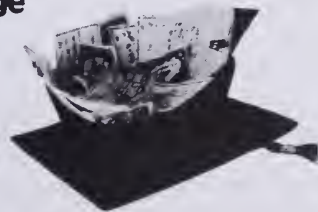
Held semi-monthly for five continuous days, 35 total course hours, the course includes lectures, audiovisual presentations, participation in routine patient examinations, review of teaching files and proven case materials, and daily round table discussions. No registration fee required.

Credit approved: Category I, AMA Physicians Recognition Award, American College of Radiology, Hour for Hour.

Courses have been scheduled through June 1977: Physician courses begin: 1/3, 1/10, 2/7, 2/14, 3/21, 4/4, 4/18, 5/9, 5/16, 6/6, 6/13. Technologist courses begin: 1/24, 2/21, 3/28, 4/25, 5/23, 6/27.

For further information write to: Dawn Nevling Shull, Dept. of Diagnostic Radiology, The University of Texas System Cancer Center, Texas Medical Center, Houston, Texas 77030. ●

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# ON THE PROPAGATION OF QUAIL AND FAMILY PHYSICIANS

H. C. MULLINS, M.D.,  
Chairman, Department of Family Practice,  
ROBERT A. KREISBERG, M.D.,  
Dean, University of South Alabama  
College of Medicine

Over the last twenty years, attempts have been made in Alabama to increase the number of bob-white quail in areas where they were scarce. Various approaches have been tried. Probably the most popular was to release pen-raised birds into the shortage areas. Quail eggs were hatched in an incubator, the birds were raised in cages where they were fed commercially prepared "wild game feed", put into "fly pens" where they had room to learn to fly, and then were "planted" in areas of identified need. This proved to be a failure. The birds simply disappeared. Research revealed a number of reasons for this. The birds could not survive because of predators, because of their inability to obtain food for themselves in the natural environment, because of their inability to fly in wet weather and many died of disease. Those birds which did survive left the area and made a home where the quail population was already adequate. Further study confirmed the fact that the introduction of birds was not the answer. The answer lay in providing a proper habitat or environment. If the environment provides good cover with areas of nesting and refuge, as well as a good source of food, birds from many miles away will "discover" the area, establish a home and raise a family.

What does this have to do with Family Practice, and particularly a report on Family Practice at South Alabama? Perhaps nothing; it's whatever each of us sees in it. I see that the environment or habitat is important in the development of family physicians and in the selection of a practice site, in that it has different effects on faculty, students, residents, and practicing physicians.

Family Practice faculty need a good habitat including good cover which provides protection from predators and threats from those naturally occurring events in academia, as well as an adequate supply of nourishment to feed their intellectual, cultural, and professional appetites. Students and residents need an opportunity to experience the natural habitat of the practicing physician with its predators and threats and to share his sources of nourishment.

The best birds are those that are hatched and raised in the habitat in which they will live. The same is true for

medical students and residents. The closer the learning setting approaches the setting of eventual application, the more effective and valuable the learning will be.

In some game management areas, predators have been a problem. Removal of the predators resulted in the overgrowth of other undesirable pests, and the survival of unfit quail who soon died out. When proper cover is available to protect the quail, they are able to live in a mutually beneficial symbioses with their predators and are able to produce healthy and robust offspring.

Once again you might ask, what does this have to do with Family Practice at South Alabama? My response is that the habitat at the University of South Alabama is good for Family Practice. Some of the specifics contributing to this environment are; 1) the commitment of the university to train family physicians even before the medical school became a reality; 2) the establishment of a Department of Family Medicine equal to the other clinical departments early in the history of the school; 3) the recruitment of basic science and clinical faculty with an understanding of the schools commitment to Family Practice and primary care; 4) the adoption of a budget generous enough to support necessary programs; 5) the establishment of an adequate number of Family Practice faculty positions; 6) the provision of curriculum time in the freshman, sophomore, junior and senior years; 7) the construction of a decentralized remote Family Practice Center; and 8) the appointment of Family Practice faculty on important committees such as Planning, Curriculum, Admissions and others.

What are the results? The department now has three full-time Family Practice faculty, eight part-time faculty and over 30 Family Practice preceptors, and we have high expectations of recruiting additional excellent faculty in the near future.

Students are exposed to Family Practice during the weekly clinical correlation conference during their freshman year, and during Physical Diagnosis in their sophomore year. All students spend one month in their junior year in a Family Practice Clerkship. This time is spent in the office of a practicing physician in Mobile, Monroeville, Brewton, Demopolis or Troy, the natural habitat of the family physician. A two-month elective is available to senior students, which is also spent in this environment.

Our residency program has been approved and we will have four first year residents beginning in July, 1977. These residents will learn knowledge and skills in the conventional specialties at the university hospital, rotating through the specialty services under supervision of faculty in the various clinical departments. Knowledge and skills unique to the family medicine as well as the application of the other specialties in family practice, will be carried out in the Family Practice Center now under construction located at the natural habitat of a community setting in Fairhope.

A lot of mistakes were made in game management until information about the bob-white quail was systematically gathered and studied. Family Practice has been studied very little. We are beginning to know what it is, what it does, what the outcomes are, and how to teach it, but we need to study it more. The Department of Family Practice at South Alabama has field-tested an information gathering system for the past nine months and hopes that this will soon



become a part of many private family practices. The results of that information should be as beneficial to Family Practice as the use of field research was to game management.

In a "report", I suppose one should describe a number of specific programs and activities but I have elected not to do so in this article. Any specific program would be about as successful as the "planting" of "pen-raised birds" if the habitat is inadequate; and conversely if the proper environment exists, appropriate programs will develop naturally. Needless to say I am prejudiced, but I feel the habitat at the University of South Alabama is right for Family Practice.

Good game management is not a one time shot, but requires long-range planning and on-going habitat maintenance. The same is true for Family Practice education. Given proper attention, the habitat here will continue to improve with time, producing an increasing number and quality of family physicians. ●

### NBC WINS "MOST VIOLENT"

The most violent TV network last fall was the National Broadcasting Company, according to the National Citizens Committee for Broadcasting, which received a \$25,000 grant from the AMA to support its monitoring of violence on TV. The American Broadcasting Company was second and the Columbia Broadcasting Company was the least violent. ●

### DIGEST OF ACTIONS CONTINUED FROM PAGE 55

It is contemplated that this will be released, with appropriate consent forms, for individual case-by-case utilization but no mass clinics are being scheduled at this time.)

● Legal: The jail case is set for trial on Monday, February 21, 1977; the Alabama Nursing Home rate suit against Medicaid is in the "discovery" stage.

● The Council on Prevention of Disease and Medical Care has met and considered the limited program for gonorrhea culture pickup which has been severely damaged by loss of Federal appropriations. This Council is considering the comprehensive approach to Health Manpower needs as a continuing project.

● Was advised of the closure of the oyster beds in Mobile Bay effective 6:00 A.M., January 31, 1977. ●

# MEDIX

consult local listing for time/channel

# rural primary care ? consider north carolina

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# Bureau of Preventable Diseases

FREDERICK S. WOLF, M.D., DIRECTOR

The widespread epidemic in Alabama occurring in early January involving children, both infants and those young people of high school years as well as some elderly individuals, characterized by nausea, vomiting, temperature of 103 to 104, diarrhea, occasional cough, and headache, and some with chest pain, is probably a disease of viral origin which at this time has not been identified by the laboratory. On the assumption that this could very well be influenza type B, the following references to Reye's Syndrome are offered:

Chaves-Carballo E, et al: Encephalopathy and fatty infiltration of the viscera (Reye-Johnson syndrome): a 17-year experience. *Mayo Clin Proc* 50(4):209, 1975

Corey L, et al: Influenza b associated Reye's syndrome: incidence in Michigan and potential for prevention. *J Infect Dis*, Apr 77 (in print)

Corey L, and Rubin RJ: Reye's syndrome 1974: an epidemiological assessment in Reye's syndrome, Pollack JD ed. Grune and Stratton 1975. p. 179

Corey L, et al: A nationwide outbreak of Reye's syndrome — its epidemiologic relationship to influenza b. *Amer J Med*, Nov 76 (in print)

Schubert WK, et al: Reye's syndrome. *DM (Disease-a-Month)*: 1-30, 1975

Thaler, MM: Metabolic mechanisms in Reye syndrome. End of a mystery? *Am J Dis Child* 130(3):241, 1976

**FELINE LEUKEMIA**—The following is a summary of a paper given by Dr. Glen Caldwell of the Cancer Branch, Cancer and Birth Defects Division, Bureau of Epidemiology, Center for Disease Control, presented at the Third Annual Meeting of the Feline Leukemia Virus Group, St. Thomas, Virgin Islands, in November, 1976:

"We know that FELV can be transmitted between cats and the infected state ascertained by testing for GSA antigen or anti-FELV antibody. However, humans have not yet been directly shown to be positive for feline leukemia virus nor can they be definitely shown not to be at risk. Until such time as the role of cats in the epidemiology of human leukemia is more precisely defined, Dr. Caldwell recommends the following control measures:

1. Removal of cats from the environment of small children.
2. Removal of all ill cats from households.
3. Testing and removal of all FELV-positive cats from breeding establishments."

**TRANQUILIZERS DURING THE FIRST TRIMESTER OF PREGNANCY**—The Food and Drug Administration through its Commissioner of Food and Drugs released the following statement concerning the use of tranquilizers during the first trimester of pregnancy:

"The studies do not demonstrate conclusively that these drugs taken during early pregnancy can cause cleft lip or other birth defects but the use of these tranquilizers during pregnancy is rarely a matter of urgency

and their use during this time should almost always be avoided. The warning label we are now requiring will provide physicians with the information they need to prescribe these drugs safely."

The tranquilizers affected by the order to the manufacturers are meprobamate and a group of drugs known as benzodiazepines and chlordiazepoxide.

**GONORRHEA**—Gonorrhea is much of the news these days, not because it is a new disease, but after being aware of the disease for a hundred years relatively little is known about it. We do know its means of transmission and its incubation period. Unfortunately, over the years, the gonococcus has developed ever more resistance to increasing doses of penicillin. There are now present in many states of the nation a strain of gonococcus which has been found to be totally resistant to penicillin. (There is much research going on with the gonococcus, some of which may be interesting to those who read this section of the *Journal*.)

The four types of gonococci are divided according to their appearance and growth in laboratory culture media. Types 1 and 2 appear to be virulent strains while types 3 and 4 are not usually associated with disease. Some data is available which indicate that there may be a correlation between virulence and the presence of "PILI" on the surfaces of types 1 and 2 but not on types 3 and 4. Purifying the "PILI" has made it possible to demonstrate that these are pure protein containing no complex structural sugar residues. Having purified the "PILI" from two strains of type 2 gonorrhea, one researcher has determined that all gonococcal "PILI" are not identical so that blood containing specific antibodies to a particular organism or protein have been produced.

At the University of Texas Southwestern Medical School in Dallas, an experimental animal model system has been developed using chick embryos. The four types of gonococci have been raised in this fashion. The researcher has been able to increase the virulence of types 3 and 4 approximately a hundred fold by supplementing the culture medium with iron. The iron did not increase the virulence of types 1 and 2. However, types 1 and 2 could have their virulence decreased by adding a substance which naturally binds iron in hen's eggs, so that competition between the two groups, that is types 1 and 2 and 3 and 4, for iron may be an important attribute of virulence in gonococci. Reference page 2 *VD News*, Dec 76, Vol. 1, No. 4.

## GONORRHEA—December, 1976

Total Female Specimens . . . . .	19,342
Positive Cultures . . . . .	.934
Positive . . . . .	4.8
Submitted from Private Practice . . . . .	10,982
Positive Cultures . . . . .	.255
Positive . . . . .	2.3

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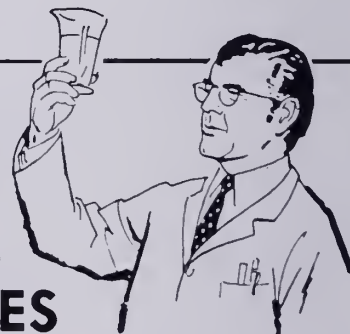
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A copy of our report is filed with the Federal Election Commission and is available for purchase from the Federal Election Commission, Washington, D.C.

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## PROGRAM SUMMARY

### MEDICAL ASSOCIATION OF THE STATE OF ALABAMA

#### 116TH ANNUAL MEETING ● MOBILE, ALABAMA

##### TUESDAY, APRIL 12, 1977

- 2:00 p.m. Board of Censors Subcommittee on Association Affairs—Canal Room, Sheraton Inn
- Board of Censors Subcommittee on Medical Examiners—Conti Room, Sheraton Inn
- Board of Censors Subcommittee on Public Health—Mezzanine, Sheraton Inn
- 4:30 p.m. Board of Censors meets to consider Association Affairs—Mezzanine, Sheraton Inn

##### WEDNESDAY, APRIL 13, 1977

- 9:00 a.m. State Board of Medical Examiners—Mezzanine, Sheraton Inn
- 12:00 noon Censors and Officers Luncheon—Malaga Inn
- 1:30 p.m. State Committee of Public Health—Mezzanine, Sheraton Inn
- Registration Desk Open—Lobby Municipal Auditorium
- 4:00 p.m. Exhibitors Reception—Room 28, Municipal Auditorium

##### THURSDAY, APRIL 14, 1977

- 7:30 a.m. Auxiliary to MASA, Breakfast, Sheraton Inn. Speaker: Mrs. Norman Gardner, President, AMA Auxiliary
- 8:00 a.m. Registration Desk Open—Lobby, Municipal Auditorium
- 9:00 a.m. Opening Session—Room 3, Municipal Auditorium
- 9:15 a.m. President's Message—Room 3, Municipal Auditorium
- 9:30 - 12:00 noon
- Orientation Program—Room 3, Municipal Auditorium
- 9:30 a.m. Peer Review Committee Orientation—Room 28, Municipal Auditorium
- 12:30 p.m. Auxiliary Luncheon—Sheraton Inn. Speaker: Mr. Charles Brooks, Cartoonist, *The Birmingham News*
- 2:00 p.m. Reference Committee Meetings—Municipal Auditorium
  - Reference Committee A—Room A
  - Reference Committee B—Room B
  - Reference Committee C—Room C
  - Reference Committee D—Room D
- 3:30 p.m. Insurance Forum, Mutual Assurance Society of Alabama—Room G, Municipal Auditorium
- 6:00 p.m. Cocktail Party—East Exhibit Hall, Municipal Auditorium
- 7:30 p.m. Seafood Buffet—East Exhibit Hall, Municipal Auditorium. Entertainment by The Royal Street Seven

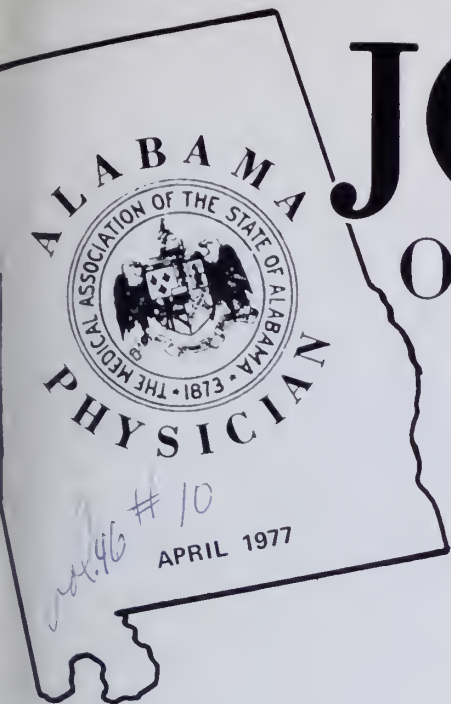
##### FRIDAY, APRIL 15, 1977

- 7:30 a.m. President's Prayer Breakfast—Colonial Room, Sheraton Inn
- 8:00 a.m. Exhibit Hall Open—West Exhibit Hall, Municipal Auditorium
- Registration Desk Open—Lobby, Municipal Auditorium
- 9:00 a.m. First Scientific Session—Room 3, Municipal Auditorium
- 11:10 a.m. Jerome Cochran Lecture—Room 3, Municipal Auditorium
- 12:30 p.m. ALAPAC Luncheon—Helenic Community Center, 50 South Ann Street, Mobile
- 2:00 p.m. Scientific Sessions—Municipal Auditorium
  - Section on Medicine—Room 3
  - Section on Pediatrics—Room A
  - Section on Surgery—Room 28
- 6:00 p.m. University of Alabama Alumni Reception—Spanish & French Rooms, Sheraton Inn
- 7:30 p.m. Awards Dinner—Colonial & English Rooms, Sheraton Inn

##### SATURDAY, APRIL 16, 1977

- 7:30 a.m. Registration Desk Open—Lobby, Municipal Auditorium
- 9:00 a.m. Annual Business Session—Room 3, Municipal Auditorium
- 1:30 p.m. Alabama Academy of Radiology Luncheon and Scientific Meeting—Roussos Restaurant, Battleship Parkway





# JOURNAL

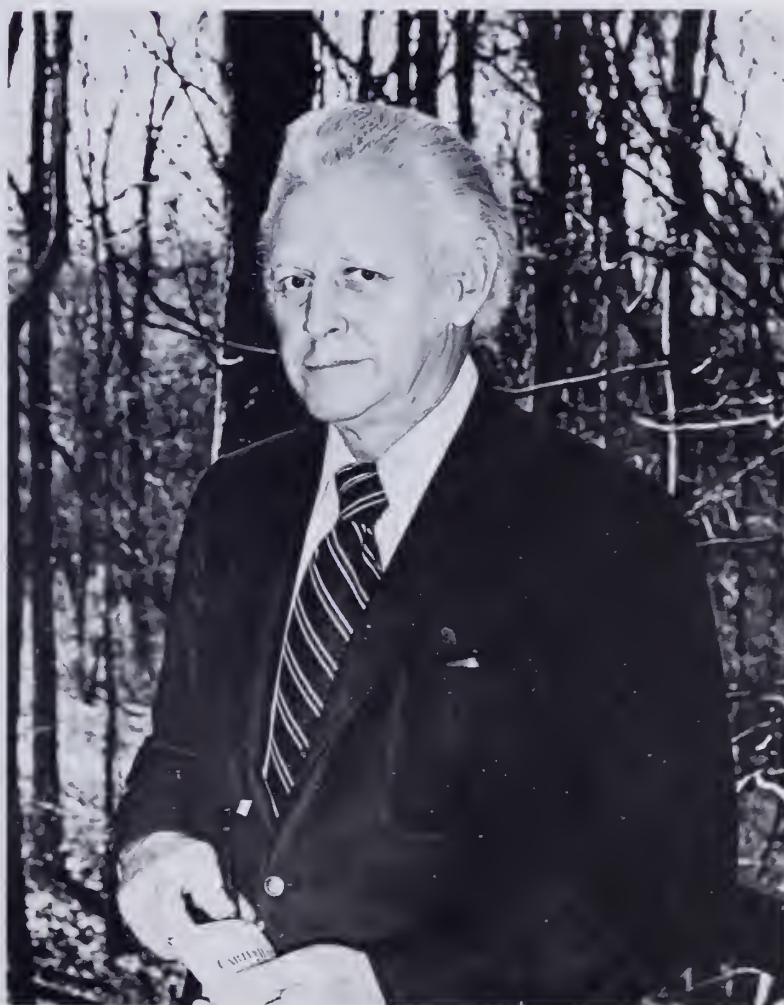
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**Contraindicated:** Known hypersensitivity to the drug. Children under 6 months of age. Acute narrow angle glaucoma; may be used in patients with open angle glaucoma who are receiving appropriate therapy.

**Warnings:** Not of value in psychotic patients. Caution against hazardous occupations requiring complete mental alertness. When used adjunctively in convulsive disorders, possibility of increase in frequency and/or severity of grand mal seizures may require increased dosage of standard anticonvulsant medication; abrupt withdrawal may be associated with temporary increase in frequency and/or severity of seizures. Advise against simultaneous ingestion of alcohol and other CNS depressants. Withdrawal symptoms (similar to those with barbiturates and alcohol) have occurred following abrupt discontinuance (convulsions, tremor, abdominal and muscle cramps, vomiting and sweating). Keep addiction-prone individuals under careful surveillance because of their predisposition to habituation and dependence.

**Usage in Pregnancy:** Use of minor tranquilizers during first trimester should almost always be avoided because of increased risk of congenital malformations as suggested in several studies. Consider possibility of pregnancy when instituting therapy; advise patients to discuss therapy if they intend to or do become pregnant.

**Precautions:** If combined with other psychotropics or anticonvulsants, consider carefully pharmacology of agents employed; drugs such as phenothiazines, narcotics, barbiturates, MAO inhibitors and other antidepressants may potentiate its action. Usual precautions indicated in patients severely depressed, or with latent depression, or with suicidal tendencies. Observe usual precautions in impaired renal or hepatic function. Limit dosage to smallest effective amount in elderly and debilitated to preclude ataxia or oversedation.

**Side Effects:** Drowsiness, confusion, diplopia, hypotension, changes in libido, nausea, fatigue, depression, dysarthria, jaundice, skin rash, ataxia, constipation, headache, incontinence, changes in salivation, slurred speech, tremor, vertigo, urinary retention, blurred vision. Paradoxical reactions such as acute hyperexcited states, anxiety, hallucinations, increased muscle spasticity, insomnia, rage, sleep disturbances, stimulation have been reported; should these occur, discontinue drug. Isolated reports of neutropenia, jaundice; periodic blood counts and liver function tests advisable during long-term therapy.



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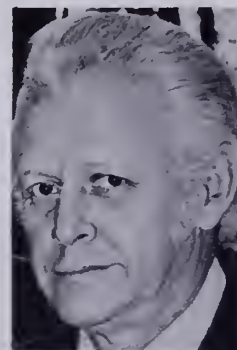
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# 19 VIEWS

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Manuscripts should be typewritten, double spaced on white paper 8½ x 11 inches with adequate margins. The original copy, not the carbon copy, should be submitted. Authority for approval of all contributions rests with the Editor. **The Journal of The Medical Association of The State of Alabama** reserves the right to edit any material submitted. The publishers accept no responsibility for opinions expressed by contributors.

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The first page should list title, the author (or authors), degrees, and any institutional or other credits. Bibliographies must contain in the order given: Name of author, title of article, name of periodicals with volume, page, month — day of month if weekly — and year. Number should be limited to absolute minimum. References should be numbered consecutively in order in which they appear in the text.

### Length Of Articles

Articles should not exceed 3,000 words (approximately 3-4 printed pages). Under exceptional circumstances only will articles of more than 4,000 words be published.

### Illustrations

Illustrations\* should be numbered consecutively and indicated in the text. The number, indication of the top, and the author's name should be attached to the back of each illustration. Legend should be typed, numbered, and attached to each illustration. Photographs should be clear and distinct; drawings should be made in black ink (preferably India ink) on white paper. For half tones, glossy photographs should be submitted.

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### ABOUT THE COVER

John B. McFerrin Rice, Jr., M.D., Florence family physician, will be installed as MASA's new President on April 16, 1977, during the Association's Annual Meeting in Mobile. Dr. Rice was President of the Alabama Chapter, American Academy of Family Physicians in 1966-1967 and served as a member of the National Board for the American Academy of Family Physicians from 1973 to 1976. ●

Governor Wallace has served notice that if his Reorganization Bill is not passed during the current Session of the Legislature, he will call for a Special Session. The bill, in its present form, is in reality a Health Department Reorganization Bill with some realignment of all other agencies under 15 super offices. The only agencies which are drastically affected are Health, Mental Health, and Corrections.

Our position on this bill needs to be clarified. We are not against the reorganization of State Government. The bureaucracy in Alabama definitely needs streamlining. Any changes that would make government more responsive to the people and reduce the size and cost of government would be a welcome relief, but will this bill accomplish that? We think not. Therefore, we are absolutely opposed to this bill as it is written.

Specifically repugnant to the physicians is the abolition of the State Board of Health, which for over 100 years has been the Medical Association. The State Committee of Public Health meets monthly to provide direction and leadership for the State Health Officer, and effectively insulates him from political pressures. Under the present reorganization plan, this insulation would be completely removed and the State Health Officer would be subject to the whims of politicians. This could very possibly result in a throw-back to the spoils system.

In a concerted effort to organize grass roots opposition to the bill in its present form, MASA has developed a brochure entitled, "Leave Well Enough Alone." You should have received ten copies of this brochure with a letter suggesting the methodology for assisting us in working against this take over of public health. The seals of the Alabama Dental Association, the Alabama Pharmaceutical Association and the Medical Association all appear together on the back of the brochure, thereby indicating to the public the displeasure of these health-related professional groups.

Our Chairman has stated emphatically that this is the most crucial issue to face Organized Medicine in Alabama since he has been affiliated with the Association. If this bill passes as it is now written, there will be no returning to public health as it exists today. We need your help now.

Contact your Senators and Representatives—insist that they—"Leave Well Enough Alone." ●





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#### BRIEF SUMMARY OF PRESCRIBING INFORMATION

\*INDICATIONS. Based on a review of this drug by the National Academy of Sciences—National Research Council and/or other information, FDA has classified the indications as follows:

**Effective:** Management of nausea and vomiting and dizziness associated with motion sickness.

**Possibly Effective:** Management of vertigo associated with diseases affecting the vestibular system.

Final classification of the less than effective indications requires further investigation.

**CONTRAINDICATIONS.** Administration of Antivert (meclizine HCl) during pregnancy or to women who may become pregnant is contraindicated in view of the teratogenic effect of the drug in rats.

The administration of meclizine to pregnant rats during the 12-15 day of gestation has produced cleft palate in the offspring. Limited studies using doses of over 100 mg/kg/day in rabbits and 10 mg/kg/day in pigs and monkeys did not show cleft palate. Congeners of meclizine have caused cleft palate in species other than the rat.

Meclizine HCl is contraindicated in individuals who have shown a previous hypersensitivity to it.

**WARNINGS.** Since drowsiness may, on occasion, occur with use of this drug, patients should be warned of this possibility and cautioned against driving a car or operating dangerous machinery.


**Usage in Children:** Clinical studies establishing safety and effectiveness in children have not been done; therefore, usage is not recommended in the pediatric age group.

**Usage in Pregnancy:** See "Contraindications."

**ADVERSE REACTIONS.** Drowsiness, dry mouth and, on rare occasions, blurred vision have been reported.

More detailed professional information available on request.

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**Antivert<sup>®</sup>/25**   
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This fixed combination drug is not indicated for initial therapy of edema or hypertension. Edema or hypertension requires therapy titrated to the individual patient. If the fixed combination represents the dosage so determined, its use may be more convenient in patient management. The treatment of hypertension and edema is not static, but must be reevaluated as conditions in each patient warrant.

\* **Indications:** When the fixed combination represents the dosage determined by titration: Adjunctive therapy in edema associated with congestive heart failure, hepatic cirrhosis, the nephrotic syndrome. Corticosteroid and estrogen-induced edema, idiopathic edema; hypertension, when the potassium-sparing action of its 'Dyrenium' component is warranted.

**Contraindications:** Further use in progressive renal or hepatic dysfunction; hyperkalemia. Pre-existing elevated serum potassium. Hypersensitivity to either component or other sulfonamide-derived drugs. Routine use of diuretics in otherwise healthy pregnancy.

**Warnings:** Do not use potassium supplements, dietary or otherwise, unless hypokalemia develops or dietary intake of potassium is markedly impaired. If supplementary potassium is needed, potassium tablets should not be used. Hyperkalemia can occur, and has been associated with

cardiac irregularities. It is more likely in severely ill patients with urine volume less than one liter/day, the elderly or diabetics, with suspected or confirmed renal insufficiency. Periodic determinations of serum  $K^+$  should be made. If hyperkalemia develops, substitute a thiazide alone, restrict  $K^+$  intake. The presence of a widened QRS complex or arrhythmia in association with hyperkalemia requires prompt additional therapy. Thiazides are reported to cross the placental barrier and appear in breast milk; fetal or neonatal hyperbilirubinemia, thrombocytopenia, altered carbohydrate metabolism and other adverse reactions that have occurred in the adult may result. When used in pregnancy or in women who might bear children, weigh potential benefits against possible hazards to fetus. Adequate information on use in children is not available.

**Precautions:** Do periodic serum electrolyte determinations (particularly important in patients vomiting excessively or receiving parenteral fluids). Periodic BUN and serum creatinine determinations should be made, especially in the elderly, diabetics, or those with suspected or confirmed renal insufficiency. Watch for signs of impending coma in severe liver disease. If spironolactone is used concomitantly, determine serum  $K^+$  frequently; both can cause  $K^+$  retention and elevated serum  $K^+$ . Two deaths have been reported with such concomitant therapy (in one, recommended dosage was exceeded, in the other serum electrolytes were not properly monitored). Observe regularly for possible blood dyscrasias, liver damage, other idiosyncratic reactions. Blood dyscrasias have been reported in patients receiving Dyrenium<sup>®</sup> (triamterene, SK&F Co.), and

leukopenia, thrombocytopenia, agranulocytosis and aplastic anemia have been reported with thiazides. Do periodic blood studies in cirrhotics to check for nondrug-related variations in blood pictures, and in patients with folic acid depletion since 'Dyrenium' may contribute to appearance of megaloblastosis. Antihypertensive effect may be enhanced in post-sympathectomy patients. Use cautiously in surgical patients. The following may occur: transient elevated BUN or creatinine or both, hyperglycemia and glycosuria (diabetic insulin requirements may be altered), hyperkalemia and gout, digitalis intoxication (in hyperkalemia), decreasing alkali reserve with possible metabolic acidosis. 'Dyazide' interferes with fluorescent measurement of quinidine.

**Adverse Reactions:** Muscle cramps, weakness, dizziness, headache, dry mouth; anaphylaxis, rash, urticaria, photosensitivity, purpura, other dermatological conditions; nausea and vomiting, diarrhea, constipation, other gastrointestinal disturbances. Necrotizing vasculitis, paresthesias, icterus, pancreatitis, xanthopsia and, rarely, allergic pneumonitis have occurred with thiazides alone.

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**Brief Summary of  
Prescribing Information**

**Actions:** Pyrvinium pamoate appears to exert its anthelmintic effect by preventing the parasite from using exogenous carbohydrates. The parasite's endogenous reserves are depleted, and it dies. Povan is not appreciably absorbed from the gastrointestinal tract.

**Indication:** Povan is indicated for the treatment of enterobiasis.

**Warnings:** No animal or human reproduction studies have been performed. Therefore, the use of this drug during pregnancy requires that the potential benefits be weighed against its possible hazards to the mother and fetus.

**Precautions:** To forestall undue concern and help avoid accidental staining, patients and parents should be advised of the staining properties of Povan. Care should be exercised not to spill the suspension because it will stain most materials. Tablets should be swallowed whole to avoid staining of teeth. Patients and patients should be informed that pyrvinium pamoate will color the stool a bright red. This is not harmful to the patient. If emesis occurs, the vomitus will probably be colored red and will stain most materials.

**Adverse Reactions:** Nausea, vomiting, cramping, diarrhea, and hypersensitivity reactions (photosensitization and other allergic reactions) have been reported. The gastrointestinal reactions occur more often in older children and adults who have received large doses. Emesis is more frequently seen with Povan Suspension than with Povan Filmseals.

**How Supplied:** Each Povan Filmseal<sup>®</sup> contains pyrvinium pamoate equivalent to 50 mg pyrvinium, supplied in bottles of 50 (NDC 0710-0747-50, NSN 6505-00-134-1966). Povan Suspension, a pleasant-tasting, strawberry-flavored preparation containing pyrvinium pamoate equivalent to 10 mg pyrvinium per milliliter, is supplied in 2-oz bottles (NDC 0071-1254-31; NSN 6505-00-890-1093).

RC/RD PD-JA-1699-2-P (8-76)

# When it's pinworms, treat the family



## Povan<sup>®</sup> (pyrvinium pamoate)

- over 17 years of proved clinical effectiveness and safety
- no measurable absorption from the GI tract—minimal systemic side effects
- one dose—one time—that's all that's usually required
- two dosage forms: Tablets and Suspension—suitable for the entire family

**Povan—there's a form for every member of the family.**  
**PARKE-DAVIS**

# Over 12,000 valuable pension and profit sharing plans have been scrapped because of ERISA's strict new standards. Yours need not be.

## **T. Ramon Perdue and Associates of Montgomery can make sure your plan conforms — quickly, smoothly and economically.**

If your firm has a pension or profit sharing plan, you're certainly aware by now of the confusion caused by the Employee Retirement Income Security Act (ERISA), passed by Congress in 1974.

New and stricter standards for eligibility, vesting, funding, reporting and disclosure have presented seemingly insurmountable difficulties

to firms—large and small—throughout America. In fact, according to the Pension Benefit Guaranty Corporation (PBGC), some 12,000 firms have scrapped their plans altogether, rather than attempt compliance.

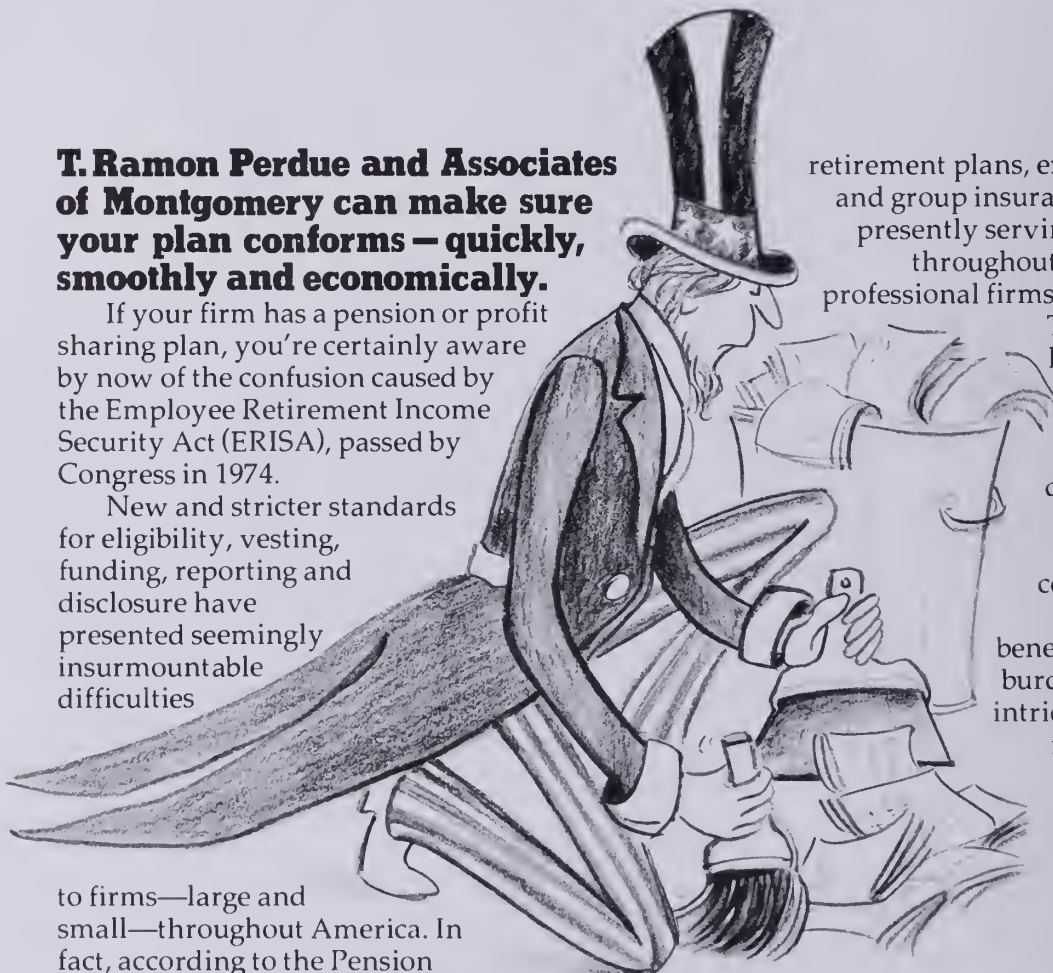
And that's a shame. Because what may seem an insurmountable difficulty to the inexperienced, can be perfectly routine to the specialist.

At T. Ramon Perdue and Associates, our specialty is designing and administering

retirement plans, employee benefit and group insurance programs. We are presently serving over 500 businesses throughout Alabama, from small professional firms to large corporations.

This year alone, we have helped over 250 of our clients bring their plans into conformance with ERISA quickly, smoothly and economically.

We hope you have not yet considered scrapping your valuable employee benefit program. But the burden of record keeping, intricate technicalities and responsibility has been so overwhelming that you are wondering if it is worth it, call or write us today. Salvaging your plan may be easier than you imagine.



## **T. Ramon Perdue and Associates**

Employee Benefit Consultants, Brokers and Actuaries  
Telephone 205-834-6050



T. Ramon Perdue and Associates has been selected to design and administer the new Employee Pension Plan of the Association of the State of Alabama.



## A Year Of Progress



WILLIAM T. WRIGHT, M.D.

My year as president has been faced with many challenges but I have enjoyed the busy year. The formation of our new malpractice insurance company has been the high point of our year's activity. The Board of Censors has spent many hundreds of hours studying all plans available and I believe that when the Mutual Assurance Society of Alabama issues its first policy on April 16, 1977, to our membership, it will be the best policy that could possibly be issued considering all factors involved.

There will be some who disagree and say why didn't you do this or that. My answer to you is you probably do not understand all the facts. No system is perfect, but please think about the alternatives and I believe we will all work together to assure the success of our new company. We did not go in the insurance business by choice but were forced to do so and if we must be in this business it should be successful.

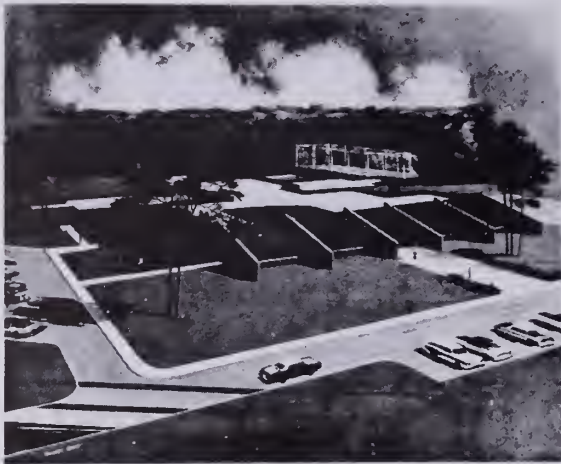
This year we have also chosen a new Executive Director, Lon Conner. He is carefully analyzing the duties and capabilities of our staff people to be sure our staff is meeting the needs of our membership. I have found his leadership to be an inspiration to the staff. All of the Councils have functioned well this year and I wish to thank each member for their help. The Councils provide ideas and/or investigated bodies which assist the Board of Censors in carrying out the business of the Association. This is essential to meet the challenges facing the Association.

We still need more support for ALAPAC among our members. Dickie Whitaker does a good job, but he has little impact unless you provide the "back home" contact to legislators and send your membership dues.

Jack Mooresmith provides the best legal counsel we could possibly find anywhere.

Vernon Stabler, M.D., as president last year, has been a hard act to follow. I wish John Rice, M.D., every success in his assumption of the office of president. Thank you.

*Bill*



**Psychiatrists**

WILLIAM K. HANEY, M.D.  
E. J. PHILLIPS, M.D.  
JOHN C. WICKS, M.D.  
RICHARD B. RUBIN, M.D.  
GEORGE E. TWENTE, M.D.

**Administrator**

James E. Berry

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P. O. BOX 1230 -- DECATUR, ALABAMA 35602  
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## *The Retreat*

### A PRIVATE PSYCHIATRIC HOSPITAL

This 64-bed ultra-modern facility offers individualized intensive, yet comprehensive treatment of emotional disorders. Specifically designed to meet the unique and specialized needs of the emotionally ill patient, the facility also offers treatment of problems involving alcohol and drug abuse.

The Retreat offers a full range of routine diagnostic, therapeutic, laboratory, x-ray, EKG, EEG and electroconvulsive treatments.

Treatment programs of staff psychiatrists and consultants include occupational, recreational, social services and tutoring.

The Retreat is a member of: National Association of Private Psychiatric Hospitals; North Alabama Regional Hospital Council; Alabama Hospital Association.

Fully accredited by Joint Commission on Accreditation of Hospitals. Medicare approved. A participating Blue Cross Hospital.

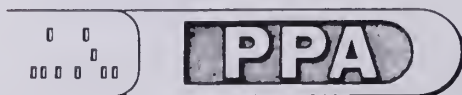
## **Don Martin is a specialist doctors consult.**

Donald C. Martin, CLU, is an expert in the diagnosis and treatment of the special financial problems faced by practitioners in the Alabama area.

Not only does he provide in-depth counseling and professional estate analysis, but also he is qualified to work with your lawyer and accountant in developing the tax-sheltered retirement plans upon which you depend so heavily for your later years.

What's more, Don is known for his proficiency in evaluating the fringe benefit planning needs of professional associations.

Call Don Martin, doctor, for a diagnosis of your financial problems.



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## BREATHING WITH COMFORT.

Choledyl — a highly soluble, true salt of theophylline — rapidly relaxes bronchospasm to promote easier breathing. And, gastric discomfort is minimal.

Because Choledyl is more stable...more rapidly absorbed from the G.I. tract than aminophylline.

Available in both tablets and elixir for patients with obstructive lung disease.

**Choledyl® (oxtriphylline) Tablets and Elixir CAUTION:** Federal law prohibits dispensing without prescription. Each partially enteric coated tablet contains 200 mg or 100 mg oxtriphylline. Each teaspoonful of the elixir contains 100 mg oxtriphylline; alcohol 20%. **Indications.** Choledyl (oxtriphylline) is indicated for relief of acute bronchial asthma and for reversible bronchospasm associated with chronic bronchitis and emphysema. **Warning.** Use in pregnancy—animal studies revealed no evidence of teratogenic potential. Safety in human pregnancy has not been established; use during lactation or in patients who are or who may become pregnant requires that the potential benefits of the drug be weighed against its possible hazards to the mother and child. **Precautions.** Concurrent use of other xanthine-containing preparations may lead to adverse reactions, particularly CNS stimulation in children. **Adverse Reactions.** Gastric distress and, occasionally, palpitation and CNS stimulation have been reported. **Dosage.** Average adult dosage: Tablets—200 mg, 4 times a day; Elixir—two teaspoonfuls, 4 times a day. **Supplied.** 200 mg yellow, partially enteric coated tablets in bottles of 100 (N 0047-0211-51) and 1000 (N 0047-0211-60); Unit Dose—200 mg tablets (N 0047-0211-11); 100 mg red, partially enteric coated tablets in bottles of 100 (N 0047-0210-51). Elixir—bottles of 16 fl oz (1 pint) 474 ml (N 0047-0215-16). **Toxicity.** Oxtriphylline, aminophylline and caffeine appear to be more toxic to newborn than to adult rats. No teratogenic effects have been seen. Full information is available on request.

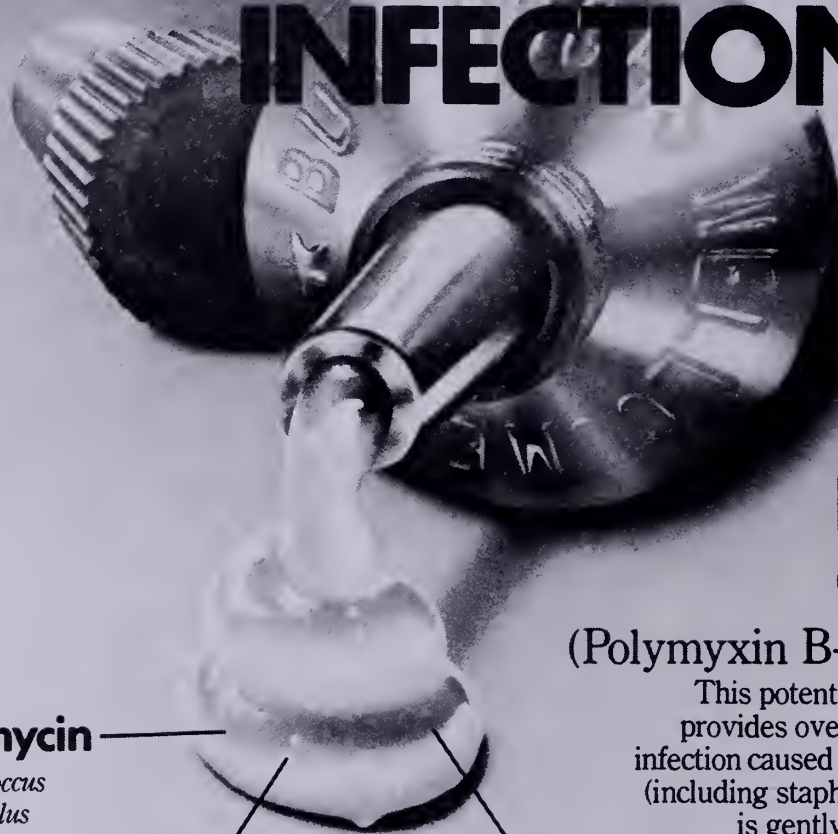


**WARNER/CHILCOTT**  
Division, Warner-Lambert Company  
Morris Plains, N.J. 07950

**CHOLEDYL®** SINGLE-ENTITY  
(OXTRIPHYLLINE) BRONCHODILATION  
MINIMAL GASTRIC DISCOMFORT



# THREE-IN-ONE THERAPY AGAINST TOPICAL INFECTION



## Neosporin<sup>®</sup> Ointment

(Polymyxin B-Bacitracin-Neomycin)

This potent broad-spectrum antibacterial provides overlapping action to help combat infection caused by common susceptible pathogens (including staph and strep). The petrolatum base is gently occlusive, protective and enhances spreading.

### Neomycin

*Staphylococcus*  
*Haemophilus*  
*Klebsiella*  
*Aerobacter*  
*Escherichia*  
*Proteus*  
*Corynebacterium*  
*Streptococcus*  
*Pneumococcus*

### Bacitracin

*Staphylococcus*  
*Corynebacterium*  
*Streptococcus*  
*Pneumococcus*

### Polymyxin B

*Pseudomonas*  
*Haemophilus*  
*Klebsiella*  
*Aerobacter*  
*Escherichia*

*In vitro* overlapping antibacterial action of Neosporin<sup>®</sup> Ointment (polymyxin B-bacitracin-neomycin).



Burroughs Wellcome Co  
Research Triangle Park  
North Carolina 27709

## Neosporin<sup>®</sup> Ointment

(Polymyxin B-Bacitracin-Neomycin)

Each gram contains: Aerosporin<sup>®</sup> brand Polymyxin B Sulfate 5,000 units; zinc bacitracin 400 units; neomycin sulfate 5 mg (equivalent to 3.5 mg neomycin base); special white petrolatum qs, in tubes of 1 oz and 1/2 oz and 1/32 oz (approx.) foil packets.

**WARNING:** Because of the potential hazard of nephrotoxicity and ototoxicity due to neomycin, care should be exercised when using this product in treating extensive burns, trophic ulceration and other extensive conditions where absorption of neomycin is possible. In burns where more than 20 percent of the body surface is

affected, especially if the patient has impaired renal function or is receiving other aminoglycoside antibiotics concurrently, not more than one application a day is recommended.

When using neomycin-containing products to control secondary infection in the chronic dermatoses, it should be borne in mind that the skin is more liable to become sensitized to many substances, including neomycin. The manifestation of sensitization to neomycin is usually a low grade reddening with swelling, dry scaling and itching; it may be manifest simply as failure to heal. During long-term use of neomycin-containing products, periodic examination for such signs is advisable and the patient should be told to discontinue the product if they are observed. These symptoms regress quickly on withdrawing the medication. Neomycin-containing applications should be avoided for that patient thereafter.

**PRECAUTIONS:** As with other antibacterial preparations, prolonged use may result in overgrowth of nonsusceptible organisms, including fungi. Appropriate measures should be taken if this occurs.

**ADVERSE REACTIONS:** Neomycin is a not uncommon cutaneous sensitizer. Articles in the current literature indicate an increase in the prevalence of persons allergic to neomycin. Ototoxicity and nephrotoxicity have been reported (see Warning section).

Complete literature available on request from Professional Services Dept. PML.



# Letters to the Editor

## Error On Burn Unit

Dear Mr. Editor:

Correcting your previous error in *The Alabama M.D.* edition Volume 13, Number 10, I refer you to page 3, "Hospital Burn Unit Dedicated." Prior to the erection of the new University Medical Center in 1962, the old Mobile General Hospital had a specialized burn unit which was in fact the first in the Southeastern United States. This facility has been in continuous operation and has had extraordinary achievements in the management of the burn, as well as in the educational value of the burn unit as a part of the training center.

Possibly you might be so indulgent as to have a write-up in your publication with data that can readily be obtained by your writing to Mrs. Shirley Mull, the Assistant Administrator, University Medical Center, 2451 Fillingim Street, Mobile, Alabama 36617.

At least you know there is one physician who reads *The Alabama M.D.*!

Sincerely,

Samuel Eichold, M.D.

Associate Professor of Medicine

## Alabama Author

Dear Sir:

My book *Immunologic Psychology And Psychiatry* finally has been published by The University of Alabama Press. In it I have given much credit to your *Journal* and to your staff. You have been of unlimited help to me, and I want you to know that my appreciation for your kindness holds no bounds.

I surely trust you will have the book reviewed soon. Tear it apart if the need be. The Press should send a copy to you, but if this is overlooked, kindly ask for your gratis copy by writing to them at your earliest convenience.

Many thanks again!

Sincerely,

Wallace Marshall, M.D.

Montgomery, Alabama

## WHAT DO YOU THINK OF THE JOURNAL?

Let us know! Write: Letters To The Editor

JOURNAL, P. O. Box 1900-C

Montgomery, Alabama 36104

COMING IN MAY

## Public Relations Workshop For Office Assistants

Montgomery — Dothan — Mobile

Sponsored By MASA, Local County Medical Societies, and the AMA.

"You, The Telephone Manager" and "Medical Collection Management"

Featuring: Video tape and role-playing case studies

May 24	Montgomery
	"You, The Telephone Manager"
May 25	Dothan and Surrounding Counties
	"You, The Telephone Manager"
May 26-27	Mobile
	"You, The Telephone Manager" & "Collection"

*How to communicate better....Better physician-patient-office staff relations....New office management approaches....Sharpen inter-personal communications skills....How to help the doctor avoid a lawsuit.*

Registration forms to be mailed from MASA Headquarters.



## NO MAGIC WORDS

The Department of Practice Management occasionally gets requests from physicians saying, "Please send me some sample collection letters that will really produce results. I've got a lot of old accounts on my books and I want to clear them up."

Our answer is, "Doctor, there are no magic words." If you let accounts grow old on your books the chances for recovery are almost nil. The magic of a 95% collection ratio is prompt and consistent follow-up.

Slow pay and delinquent accounts are again becoming a problem in some medical offices. Action needs to be taken promptly to keep them from becoming hard "collection" accounts.

There are three ways to keep informed on the status of your billing recovery. First, "collection percentage" is an indicator. If your collection ratio has been in the upper or middle 90% and is now dropping to the lower nineties or high eighties this is a warning. Second, the amount outstanding on your books is a yardstick. If your credit outstanding has been averaging two and a half to three times the monthly billing and is now three and a half to four months, you can anticipate a collection problem. And finally, the best indicator is an age analysis of your accounts. If the age analysis report,—hopefully you do one at least every three months,—shows a marked increase in accounts that are 60, 90 and 120 days past due, it is time to take action.

This does not mean that you immediately rush out and purchase a lot of brightly colored statment stickers or a package of commercial collection letters that are "guaranteed" to "get the money!" They might help momentarily but too often the "guarantee" is meaningless and the public relations impact is negative. Your best step is to tighten the follow-up procedures in your office.

The best collection program today is still a good billing and follow-up system. You are competing for the consumer's dollar and a poor billing system is a handicap you do not need. Statements should be itemized and they must be sent out on time. Enclose an addressed, return envelope. Improved collection recovery will more than pay the cost. Return postage is not necessary.

A program for prompt and consistent follow-up is essential. It may vary according to your particular situation. You design it to fit the special needs of your office. More important than the specific time schedule selected is that the plan be followed rigorously. If your office is not consistent in following the plan—you really have no plan at all.

The days of sending out four, five and six statements, a number of them with colored stickers attached that ask or demand payment, are gone—along with the three cent

stamp. A fifth or sixth statement can be ignored as easy (in fact) as the first or second statement.

In the AMA brochure *The Business Side of Medical Practice*, a collection timetable is listed as follows:

- 1st month — Send statement
- 2nd month — Second statement
- 3rd month — Send a reminder note
- 4th month — Send letter or preferably telephone
- 5th month — Write patient that since he has ignored all communication the account is being turned over to a collection service.

This is now being revised for the next printing. First and second statements on accounts that have to be billed are certainly proper and in good business tradition. But if there is no response to the second statement 15 days after it has been received, a telephone call is in order.

This is not harassment. You want to find out if the patient has a financial problem. This is the time to help the patient with a payment plan, if necessary.

There is nothing embarrassing about asking for payment of an account. The medical assistant should understand that this is a standard business procedure. It can be done courteously and cordially. If the patient has a financial problem, the telephone call offers an opportunity to help make payment arrangements before the situation gets completely out of hand. If your medical assistant needs help in this area, buy her a copy of the AMA cassette/workbook *Medical Collection Methods*. The cassette program is designed specifically to explain and to demonstrate telephone collection follow-up.

Your medical assistant is not a professional collector and probably does not have the time, training, or inclination to be one. However, she can do an effective job of follow-up on slow pay and delinquent accounts to increase your recovery and reduce the outstandings, by consistently adhering to a good follow-up plan.

The magic of good collection recovery—95% or better—is in the system, not the words that are used. There are, of course, some words that are better than others to help motivate people but they need to be used in a time-planned procedure. Typed words on a letter to an account that is hoary with age have little magic.

There will always be a few accounts that become hard "collection" items but the method of handling these is another story. Your objective, and the best way to improve your billing recovery, is to keep as many accounts as possible from becoming "collector's items."

*(Editor's Note: This cassette/workbook program is available through MASA's Dept. of Communications. Available on a loan basis.)* ●



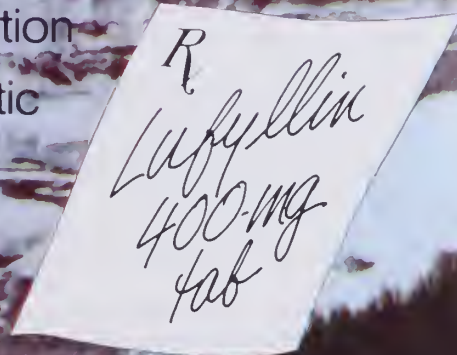
"AIR...A BASIC NEED FOR LIFE SUPPORT"

# LUFYLLIN-400

(dyphylline, 400-mg tablets)

A basic need for the bronchospastic patient because...

- A single-entity theophylline derivative
- Therapeutically effective
- High solubility for predictable absorption
- Doses required to achieve therapeutic levels are readily tolerated with little to no gastric distress.



**LUFYLLIN®** (dyphylline)  
**LUFYLLIN-400** (dyphylline) Tablets

Following is a Brief Summary:

**Indications:** For relief of acute bronchial asthma and for relief of bronchospasm associated with chronic bronchitis and emphysema.

**Contraindications:** In individuals who have shown hypersensitivity to any of its components.

Dyphylline should not be administered concurrently with other xanthine preparations.

**Precautions:** Use with caution in patients with severe cardiac disease, hypertension, hyperthyroidism, or acute myocardial injury. Particular caution in dose administration must be exercised in patients with peptic ulcers, since the condition may be exacerbated. Chronic oral administration in high doses (500 to 1,000 mg) is usually associated with gastrointestinal irritation.

Great caution should be used in giving dyphylline to patients in congestive heart failure. Such patients have shown markedly prolonged blood level curves which have persisted for long periods following discontinuation of the drug.

**Adverse Reactions:** None included in this listing which follows are a few adverse reactions which have been reported with this drug. Since there are marked pharmacological similarities among the xanthine derivatives, the possibility of these reactions be considered when the drug is administered.

The following adverse reactions have been reported:  
1. Gastrointestinal: epigastric pain, heartburn, nausea, vomiting, and epigastric pain.  
2. Nervous system: tremor, nervousness, and epigastric pain.

3. Central nervous system stimulation: irritability, restlessness, insomnia, reflex hyperexcitability, muscle twitching, clonic and tonic generalized convulsions, agitation.

4. Cardiovascular: palpitation, tachycardia, extrasystoles, flushing, marked hypotension, and circulatory failure.

5. Respiratory: tachypnea, respiratory arrest.

6. Renal: albuminuria, increased excretion of renal tubule and red blood cells.

7. Others: fever, dehydration.

**Dosage and Administration:** Adults—Usual Dose—15 mg/kg every 6 hours, up to four times a day. The dosage should be individualized by titration to the condition and response of the patient, with therapeutic blood levels considered to be between 10 mcg/ml and 20 mcg/ml. Levels above 20 mcg/ml may produce toxic effects.

**How Supplied:**

**LUFYLLIN® Tablets**—containing 200 mg dyphylline: NDC 0013-8521-82 bottles of 100; NDC 0013-8521-91 bottles of 1000.

**LUFYLLIN-400® Tablets**—containing 400 mg dyphylline: NDC 0013-8521-92 bottles of 100.

**Caution:** Federal, State, and local laws regarding dispensing without prescription.

For further prescribing information, please consult package insert, or write:

**Mallinckrodt**

**Pharmaceuticals**

## COMPREHENSIVE HEALTH CARE INSURANCE ACT OF 1977

The basic concept of this proposal is full health care for all persons through private health insurance. For many who are now employed and have some insurance protection, it would mean a substantial increase in allowable benefits that would assure that their health care needs would be met. *Equally comprehensive benefits* would be available to the poor and indigent through federal participation in the cost of insurance. A special program of supplemental insurance would provide like protection for the Medicare population.

### Mandated Employer Coverage

Most persons would receive their health care protection under *employer insurance programs* fully financed by premium paid by employers and their employees. Employers would be required to offer the coverage, and participation would be optional for the employee. Sixty-five percent of the premium would be payable by the employer (and he could pay more) for the benefit of the employee and his family; the employee would pay any balance.

Individuals regularly working at least 20 hours per week, as well as full-time employees, would be entitled to this coverage.

Coverage would begin not later than one month after the start of employment and continue for 30 days after termination (or sooner if the individual obtained corresponding coverage before then). This would give the individual time to replace coverage he had in his previous employment. The employee would also have the right to continue the employment-based coverage for 60 days at his own expense.

Moreover, under a special program for the temporarily unemployed, terminated employees would generally qualify for continuation of employment-based coverage at government expense. This is discussed below.

Some employers (generally small employers) might experience a substantial increase in payroll costs as a result of the new requirement to provide insurance for employees. These employers would be entitled to *federal subsidy* over a five-year period to alleviate such added costs. Moreover, a government study would be conducted to determine any need for continuing assistance.

### Self-Employed, Non-Employed, and the Elderly

A non-employed or self-employed person would be eligible for premium assistance on purchase of health care insurance that met federal standards and conditions of coverage. To qualify, such coverage would have to provide full care as specified in the bill—diagnostic, therapeutic, and preventive—in and out of the hospital. The government share of the premium would be paid in either of the following ways.

1. The individual might choose to pay the premium and, when completing his income tax return at year-end, simply reduce his income tax by the amount of the government's share of the premium; or
2. The individual might choose instead to request a government certificate of entitlement that could be used toward payment of his premium. (His insurance company would help him to obtain the certification, if he wished, and even put the insurance in force, pending receipt of the certificate, under federal guarantee of payment.)

Based on income tax liability of the individual or family in the year preceding the year of insurance purchase, the amount of *credit against tax* or of the certificate would be determinable as a percentage of the insurance premium. The government share of the premium would vary according to the amount of tax, and range gradually from the 100% (for the poor) to 10%. As a person's income (tax liability) rose the federal assistance would decrease. A special table incorporated in the bill would show the percentage at \$10 increments of tax liability so as to make the appropriate percentage readily determinable.

Normally, the federal subsidy percentage would be related directly to individual or family income tax liability. An exception would arise when some income was exempt from tax—interest on municipal bonds, for example—and therefore did not figure in the computation of tax liability. To compensate, the premium subsidy would be reduced by one percentage point for each \$100 of any tax-free income. For the benefit of those living on small pensions or social security income, the adjustment would be inapplicable, however, to the first \$4,000 of pension or social security income.

Employed persons entitled to coverage under employment-based plans would not be eligible for participation in the program for the non-employed. However, if an employee's share of premium under employer-sponsored coverage should exceed what he would pay as a non-employed person under the program for the non-employed, such employee could claim an income tax credit (or a certificate) for the amount of the difference.

Since Medicare benefits fall short of the standard benefits provided in "qualified" insurance under the bill, special provision would be made to offer "supplemental" insurance for the elderly. This would make available to them the full range of benefits provided for the under-65 population. The supplemental insurance premium would be supported by the federal government, in full for the aged poor, in part for the others, according to income.



## Continuity of Insurance for the Unemployed

Persons between jobs would be covered under a special program. While entitled to unemployment compensation, an individual would be eligible for continuation of the insurance he had at the time of termination of his employment, and such continuing insurance would be fully paid for by the federal government. If this eligibility should expire before he was relocated in new employment, he would be able to obtain coverage as a non-employed person, at no cost to him, for the remainder of the year.

## Benefits

Health benefits under the program are comprehensive and cover the basic needs as well as the catastrophic expenses that a family might encounter. Any person covered under the program would be entitled to all the hospital inpatient and outpatient care he might need, as many as 100 days of inpatient care in a skilled nursing facility, laboratory and x-ray services, and all home health services. Each member of the family would also be entitled to full physician services, providing all surgical needs as well as all other care, and a full range of preventive services, including physical examinations, immunizations and inoculations, and outpatient psychiatric care. Children under 7 would be fully covered for dental care, and this age limit would be raised each year so as ultimately to include all persons under 18. Adults would be covered for emergency dental care. But the plan would not pay for items normally excluded, such as comfort items or cosmetic surgery.

## Coinsurance Requirements

Some coinsurance would apply. Benefits would be subject to coinsurance at a rate of 20%, but the total coinsurance which a family would have to pay in any year would be limited according to its income. The poor would pay no coinsurance, others would pay a maximum in any year of 10% of income reduced by a "coinsurance deduction" in order to assure that the obligation for coinsurance would increase only gradually as income rose. In effect, a family of four with a total income of \$4,200, would be exempt from co-insurance. At which \$4,300 of income, the coinsurance limit would be 10% of the additional \$100 of income, or \$10; at \$10,000 the limit would be \$580.

In no case, however, would the annual coinsurance limit be more than \$1,500 for an individual or \$2,000 for a family. The limitation on coinsurance triggers the catastrophic expense protection; health services would be free of coinsurance when the individual's or family's limit was reached.

## Insurance Availability

Insurance would be *available to all* persons, regardless of prior medical history and on a guaranteed renewable basis. All carriers would offer the insurance, and would participate in an *assigned-risk pool*, if the State believed such pool was necessary to assure the availability of the coverage. In addition, premium for individuals or small groups within a state would be not more than 125% of the cost of insurance for members of large employee groups (over 100 persons) in a state.

Participation in the insurance program would be voluntary. Individuals would generally enter the program as they became eligible or would wait for an open enrollment period. Two open enrollment periods would be provided per year, each lasting 30 days. It would not be necessary to wait for open enrollment when purchasing insurance to continue coverage.

## Administration

State governments would regulate insurance within the state, subject to federal guidelines established under the program by a 15-member Health Insurance Board. The Secretary of HEW and the Commissioner of Internal Revenue would be members of this Board, and the additional members would include 7 practicing doctors of medicine, a doctor of osteopathy, a doctor of dentistry, and members of the general public.

The new Board would also consult with carriers, providers and consumers in planning and developing programs relating, among other things, to quality medical care and effective utilization of available resources.

For purposes of reimbursement of physicians' services, the program would recognize usual and customary or reasonable charges. It would allow flexibility in determining acceptable methods of hospital reimbursement, providing for recognition of a variety of mechanisms, including prospective reimbursement.

## Limitation on Civil Liability

A separate measure in the bill is intended to preclude the duplication of claims for medical costs in legal actions for damages. Under this provision, no liability would be recognized in an action against a medical provider with respect to costs for health care services which are payable under the national health care program or any Social Security program.

\*Referred to House Committees on Interstate and Foreign Commerce and Ways and Means on January 13, 1977.

\*\*Referred to Senate Committees on Finance and Labor and Public Welfare on January 14, 1977.

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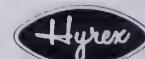
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# "How do people rate their medical care?"

Is there a "crisis" in delivery of medical care in America?

Some critics of American medicine say there is. But patients express a high degree of satisfaction in virtually all polls.

In these studies, a clear majority of people respond by saying that they are satisfied with their medical care, that they can find a doctor when they need one, that the costs aren't too burdensome, and that in general the American way of medical care—delivered in large part by the private physician in his office or to his patients in the hospital—works well. Below are excerpts from many studies completed in the last six or seven years:

- A survey by the Continental Illinois Bank of Chicago, focused not on depositors but on a probability sample of Chicago residents/suburban residents, found that 90% of households with at least one person employed had medical insurance. Respondents indicated overall satisfaction with the extent of employer coverages. Six out of ten said their medical insurance, disability insurance and pension benefits were "adequate." 15% even thought the employers medical insurance was "more than enough."

- A survey by Black Opinion Survey of Washington, D. C., which did a series of ten scientifically conducted telephone surveys among Black Americans, found 70% express great satisfaction with their medical care, 25% expressed dissatisfaction, and 5% were undecided.

- A Louis Harris study made for Congress in 1973 on our most serious national problems ranked inflation first, health care delivery 15th out of 16.

- About 7 Americans in every 10 say they are "very satisfied" with their personal state of health, according to the University of Michigan's Institute for Social Research.

- Roper Reports finds that nearly 9 in every 10 (86%) have a family doctor they can call upon. Better than 8 in 10 told Roper interviewers they are "very satisfied" or "fairly well satisfied" with both the quality and availability of their medical care. Although a majority believe medical costs are too high, 8 in 10 report they are "very satisfied" or "well satisfied" with the provisions they have for meeting their medical expenses. About 9 in 10 say they have some kind of health insurance.

- The U. S. Office of Consumer Affairs' tabulation of consumer complaints ranks medically-related complaints lowest on a list of 20 categories, accounting for about 1 per cent of all consumer complaints. Automobile and home repairs head the list.

- The Harris Poll respondents ranked medicine's leadership the highest among 16 different professions and institutions. About 7 in 10 say that leaders in medicine "really know what the people want," while only 2 in 10 believe medical leadership is "out of touch."

- Chilton Research Services found doctors at the head of the list of occupations according to trustworthiness. On a

scale of 1 to 10, Chilton's respondents gave doctors a score of 8.2.

A telephone survey by Citicorp, parent company of New York's First National City Bank, found that three out of four in a nationwide sample said the care they get is good to excellent; only a fifth said it was fair or poor.

- A study (about 1973) by the Bureau of Social Science Research, Inc. of the Washington, D.C., metropolitan area shows that six of every seven local residents are at least "pretty satisfied" with their medical care and only one in 10 expresses any measurement of discontent. Study was commissioned by and published in the *Washington Post*.

- Life Magazine in 1972 found that 68 per cent of respondents to a request for write-in cards rated medical treatment for themselves and their family as good to excellent, and only 7 per cent said their treatment was poor. Seventy per cent said their doctor seems to care about them individually, either "cares a lot" or "care some," but 30 per cent felt their doctor was "just doing a job" or was "indifferent." ●

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# History Of The Medical Association of The State of Alabama

*(Editor's Note: In the March, April and May, 1936, issues of THE JOURNAL, Dr. Cannon's brilliant historical manuscript about the history of MASA appeared. It was entitled "Alabama's Eighty-Nine Years of Medical Organization" and recounted those early years of creation, growth and expansion.*

*The manuscript, of course, carried events up to 1935 and as far as can be determined, the history of MASA has not been updated since that time.*

*Dr. Cannon was a former secretary-treasurer of the Association and served as state health officer from 1928-1929. He passed away December 5, 1962. The Association's prestigious medical reporter award, given*

by  
Douglas L. Cannon, M.D.



*each year to "recognize a reporter who has shown outstanding ability in the reporting of medical news," was named in his honor.)*

## Medical Practice Act Upheld

It was in January of this year that "the able, learned, and exhaustive opinion handed down by Mr. Justice Tyson, and concurred in by the other four distinguished jurists who compose the Supreme Court of the State, interpreting the full meaning and scope of the statutes regulating the practice of medicine in Alabama, established beyond cavil or doubt the constitutionality of the law as enacted, and fully upheld the right of the Association, under the law, to examine into the qualifications of all applicants desiring to practice the profession in Alabama."

Moreover, on February 26, 1903, when Dr. R. M. Cunningham, of Birmingham, was Lieutenant Governor, there was approved by the Chief Executive of Alabama an act to prescribe the branches of medical learning upon which applicants for the privilege of treating diseases of human beings in this State must be examined. Specified the law, in part: "Any applicant for a certificate of qualification to treat diseases of human beings by any system whatsoever, shall, according to rules prescribed and standards established by The Medical Association of the State of Alabama, be examined...in the following branches of medical learning, to wit: Chemistry, anatomy, physiology; the etiology, pathology, symptomatology, and diagnosis of diseases; obstetrics and obstetrical operations; gynecology, minor and major surgery; physical diagnosis; hygiene, and medical jurisprudence..."

## Health Laws Revised

Nor did the year close without the enactment of other legislation. "That the chapter of health laws as written in the code is illogically construed, faulty in sequential arrangement, and ambiguous in verbiage, has long been known to the State Health Officer," reported the Board, In the light of these deficiencies, a general bill designed to meet the situation was placed in the hands of Hon. E. S. Starr, Representative from Dallas County, with the result that on Octo-

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## Final In The Series

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### With The Turn Of The Century

In the year 1901 Alabama was entitled to thirteen\* representatives in the House of Delegates of the American Medical Association; and, to serve, President E. L. Marechal, of Mobile, appointed Dr. Russell M. Cunningham, Ensley; Dr. W. E. B. Davis, Birmingham; Dr. John C. LeGrand, Birmingham; Dr. Henry A. Moody, Bailey Springs; Dr. William H. Sanders, Mobile; Dr. Silas S. Tam, Mobile; Dr. William H. Sledge, Mobile; Dr. William T. Henderson, Mobile; Dr. James A. Goggans, Alexander City; Dr. William W. Harper, Selma; Dr. William G. Harrison, Talladega; Dr. Robert S. Hill, Montgomery; and Dr. M. B. Cameron, Sumterville.

Those of the number who were privileged to discharge the responsibility must have experienced a high degree of satisfaction when Dr. C. A. L. Reed, President of the national body, at its St. Paul meeting in June 1901,

referred to Alabama's system of medical organization as "the incomparable Alabama plan." Dr. Marechal, in his presidential message to the Association in 1902, directed attention to the fact that, "the American Medical Association, in its plan or reorganization, adopted the fundamental principles underlying our system"; due in part, no doubt, to its appraisal by Dr. George H. Simmons, at that time Secretary of the American Medical Association, "as the best medical organization in the world."

On invitation of Dr. Groce Harrison, now of Birmingham, Talladega and the Talladega County Medical Society accorded the Association a "highland welcome," April 21-24, 1903, "to a city of interesting history—a place of clustering memories." The oration of the year was delivered by that courtly gentleman, Dr. Lewis Coleman Morris, of Birmingham, who "turned the search light of scrutinizing investigation into the innermost recesses of the organization, enquiring into its aims and objects." "If I have failed to show that these are of the most unselfish, philanthropic and benevolent character," said Dr. Morris, "please attribute the fault to my stammering tongue..."

\*Reduced to three (one to each 500 members or fraction thereof) effective with subsequent meetings of the American Medical Association, and later further reduced to two (one to each 750 members or fraction thereof).



ber 9, 1903 an act was passed "to amend, reconstruct and provide for the enforcement of the laws relating to public health."

#### **Constitution of 1906 Adopted**

Dr. W. H. Sanders, addressing the Montgomery session of 1905 under the presidency of Dr. C. C. Jones, of East Lake, said that "all governments and chartered bodies...find it necessary from time to time to amend or revise their constitutions, so as to embody in them alterations that time and experience have shown to be wise and necessary. The Constitution of this Association is thirty-two years old.... and....when conceived and formulated....it deservedly ranked as a unique and remarkable document, remarkable for the original and philosophical principles it embodied, as well as for the clear and logical way in which these principles were put together. The time seems to have arrived, however, for a general revision of the instrument, so as to make it express more fully, and in some places more sequentially, the organic principles it contains."

Therefore in 1906, in Birmingham, a new constitution was adopted without alteration or modification of any of the fundamental and essential principles incorporated in the Constitution of 1873.

#### **Appropriation To Public Health Increased**

On March 6, 1907, an appropriation of \$15,000.00 annually was made to the Association for its use as a State Board of Health, and under conditions set forth in the law—"an amount of liberality," said the Board, "that should place the present Legislature upon a high plane as respects the promotion of the health of the people."

"I should probably not err," read President G. T. McWhorter to the Association, in session in Mobile, April 16, 1907, "in stating that the objects and aims of the medical profession are better understood by the people at large...than at any period in our past history...There is no surer index of public sentiment than the views of a deliberative body chosen by popular suffrage for the discharge of legislative functions. As a member of the Senate of Alabama, and closely observant of prevailing sentiment, I congratulate this Association upon the firm and strong hold it has upon the confidence

and good will of the Legislature of Alabama."

#### **Medical Practice Act Amended**

The year 1907 saw, also, the Medical Practice Act amended on August 9th in such way as to require that all examinations for certificates of qualification to treat diseases of human beings be held in Montgomery. By the same amendment, approved by Governor B. B. Comer, the State Board of Censors (the Board of Medical Examiners) was granted authority to establish reciprocal relations with similar boards of other states requiring examinations upon substantially the same branches of medical learning as those enumerated in the statutes of Alabama. The privilege was not exercised, however, until 1917 when rules governing reciprocity were adopted.

Dr. Samuel Wallace Welch, of whom much was to be heard in other years, was President of the Association when it convened in the House of Representatives, in Montgomery, April 21-24, 1908. In his message he deplored the death, on April 19th, 1907, of Dr. R. F. Michel, so long and prominently identified with organized medicine. For nearly forty years he was a member of the Association, serving as its President in the year 1869-1870. In 1872 he was elected Vice-President of the American Medical Association, and in 1883 was Surgeon General on the staff of Governor Edward A. O'Neal.

#### **Further Appropriation To Public Health**

Legislation of April 22nd, 1911 made available \$25,000.00 annually for the protection of the health of the people of Alabama, thus marking another upward step in the march toward the "goal of the high calling" of the Association.

#### **New Charters For County Societies**

When the Legislature on February 6, 1893 confirmed, amended and extended the charter of the Association, the organization "conferred upon the State Board of Censors the right to prepare for issuance new charters for all County Medical Societies." Since "the original charters," referred to in a foregoing paragraph, "were very short and incomplete...written on paper...not especially prepared for the pur-

pose,...it is highly proper that new charters should be issued in proper form," Dr. W. H. Sanders, as Chairman of the Board of Censors, told the Association in 1912: "The one which I hold in my hand is that of the Medical Society of Talladega County," and is as follows:

*Proof having been made to The Medical Association of the State of Alabama, a corporation chartered by said State, that the physicians of the County of Talladega, whose names appear below, have organized by adopting a constitution, approved by this association, thus placing themselves in position to cooperate with this Association in the achievement of the objects set forth in its Constitution;*

*Therefore, Be It Known, That, by virtue of the power conferred upon it by the General Assembly of the State, in an act approved on the sixth day of February 1893, this Association does hereby charter said body of organized physicians as a County Medical Society under the title of "The Medical Society of Talladega County," and authorizes and empowers said society to do and perform all acts in furtherance of the objects of its organization as set forth in its constitution, and further authorizes and empowers said society, through its proper and legal officials, to enforce the public health ordinances of this Association in so far as they apply to the said County of Talladega, and also to enforce in the said county and in all municipalities therein such public health ordinances as the respective authorities thereof may legally enact.*

*Provided that said society shall not do or perform any act in violation of the Constitution or ordinances of this Association.*

*The said Medical Society of Talladega County is hereby declared to be in affiliation with this Association, and also in fellowship with other county societies in this State chartered by this Association.*

*Done in annual session in the city of Birmingham, on the nineteenth day of April 1912. In testimony whereof the signature of the President and that of the Secretary of the Medical Association of the State of Alabama, together*

*with the seal of the said Association, is hereunto affixed.*

*Lewis C. Morris, President.  
J. N. Baker, Secretary.*

The President, assisted by Dr. Sanders and the Secretary, then issued charters to each of the sixty-seven county medical societies, Houston having been organized in 1903.

## **Distinguished Guests Of The Association**

On April 16, 1913, Dr. George W. Crile, of Cleveland, read the Association a paper entitled, "A Successful Method of Performing Shockless Operations Based on a Clinical Experience of Three Thousand Cases," which so impressed the gathering that Dr. W. H. Sanders asked for the privileges of the floor. "I am sure," said Dr. Sanders, "I reflect the sentiments of everyone present when I pronounce the paper, just read, and the illustrations that accompanied it, the most masterful presentation of a great subject that the members of this Association have ever had the pleasure and profit of hearing.

"With the inspiration and genius of a true scientist our distinguished visitor has traced the pathology of shock to its final headquarters—that enthroned king that presides over mind and body. He has thrown on the screen marvelously executed lantern slides that spoke in tones more eloquent and graphic than words could do of the intimate and harmful, yea, sometimes fatal, change that shock may produce in the ultimate cells of the great nerve centers of the human body, and with the skill and acumen of a great teacher has pointed out how those fountains of life may be securely guarded against injury from shock under the most formidable and prolonged surgical procedures. How immeasurable the means of protection of the very sources of life he has evolved? How with the skill of a magician he has robbed the surgeon's knife of much of its peril! What a boon he has conferred on suffering humanity!

"I move, Mr. President, that this Association express by a rising vote of thanks its unbounded appreciation of this great contribution to scientific and practical medicine."

A catalogue of the distinguished guests who have honored the Association by their presence from time to

time would contain the names of men occupying an enviable place in American medicine. They speak for themselves: George H. Price, of Nashville; Canby Robinson, then in Nashville; W. S. Thayer, Lewellyn F. Baker, Howard A. Kelly and J. Whitridge Williams, of Baltimore; Robert Abbe and Russell L. Cecil, New York; Nicholas Senn and Frank Smithies, Chicago; Rudolph Matas and John B. Elliott, Jr., New Orleans; Maurice H. Richardson, Henry A. Christian and James S. Stone, of Boston; Chas. H. and Wm. J. Mayo; George E. Bushnell, Washington; and John B. Deaver, of Philadelphia. Surely there could not be a more brilliant galaxy; and these are but a part of those who gave freely, each in his time, to the Association in Alabama.

## **The Last Score Of Years**

There are periods in the lives of most men they would like to forget could memory be stifled—not because they regret having had a part in an endless cycle of events but that they are forced to stand by as those they came to revere passed on. Such must have been the feeling of many when, on January 2, 1918, Dr. William Henry Sanders merged into the shadows of the Great Beyond, "dying, as he had lived, quietly, stoically, bravely." A year before, Dr. Sanders, then 79 years of age, "realizing that the ravages of time were rendering him unfit for further active service, gracefully tendered his resignation" as State Health Officer.

Dr. Sanders' "loyalty and devotion to the Association—nay, more, his simple and whole-hearted love—for he never married—was a thing apart, and no one, even of those who at times opposed him, ever questioned it. So firm and unshakable were his convictions that our scheme of organization should not be unthinkingly tampered with, that he repelled, with bulldog tenacity, every effort made to change or modify it."

In his administration, only one essential change was made in the Constitution of 1906—a proper modification, it is believed. At the 1915 annual session, held in Birmingham, representation in the house of delegates was changed from two for each county to as many as corresponds with the number of the county's representatives in

the lower house of the State Legislature, but in no case less than two.

In the same year, March 5, 1915, right was conferred by legislative action to alter, amend or extend the charter of the Association by a vote of two-thirds of those present at an annual or other lawful meeting of the Association; the only further stipulation being notice of such change in prescribed manner to the Judge of Probate of the county wherein the original declaration of incorporation was filed.

## **Dr. S. W. Welch Elected Third State Health Officer**

When Dr. Sanders "resigned as State Health Officer on January 9, 1917, those charged with the selection of his successor realized that they would not do their full duty by the people of Alabama unless they selected for the State, at that critical period in the life of our commonwealth, a man whose education, experience and character were such as to eminently qualify him as State Health Officer for the most important duty of preventing disease and conserving health by all the means known to medical science." Thus it was that Dr. S. W. Welch was chosen and well did he meet every expectation of his friends.

## **Dr. C. A. Grote Second Full-Time Health Officer**

On assuming office, Dr. Welch thought immediately in terms of a substantial public health structure for the foundation laid by his predecessors; and that laid in Walker County, where the first full-time county health department in Alabama and the second in the United States had been inaugurated June 1, 1914, under the direction of Dr. Carl A. Grote. Dr. Welch's abiding interest in this field of endeavor so commended itself to the Rockefeller Foundation and the United States Public Health Service that they contributed materially over a number of years to the expansion of Alabama's soundly planned health program, not funds alone but talent also. But for the development, for publication, of this phase of the work of the Association, as a State Board of Health, a later day must be reserved. Here it must be sufficient to say that from that humble beginning in 1914, and because of the steadfast zeal of the physicians of Alabama, the num-



ber of counties enjoying the benefits of full-time health service, has grown, at this writing, to 57.

### The Profession In Service

Time and space demand that we return, before a final paragraph is written, to the momentous days of 1917 and '18 and record briefly the response of the physicians of Alabama to the call of their country. Even as did their forebears at another period in the history of the Association, they "were found exchanging their pleasant reunions for the camp and the bivouac, confronting danger amid the carnage of the bloody battle field, or ministering at the bedside of the wounded and suffering in hospitals and infirmaries." A muster-roll, believed to be incomplete, lists 454 from 66 counties who served in the Army, the Navy and the United States Public Health Service. On their return they were welcomed by the Association in annual session, Mobile, April 16th, 1919, its spokesman being Dr. S. W. Welch; and guest speakers, Messrs. Borden Burr, Birmingham, and John A. Rogers, Gainesville. But some were beyond reach of their voices; those who gave to the uttermost: Bryant C. Rudder, Paul Lee Cocke, Mortimer H. Jordan, Philip M. Kyser, James D. Adkins, and Robert C. Goldthwaite.

"Fate denied them the victory but crowned them with glorious immortality."

### Dr. Welch's Death

So it is true in many instances. It was true in the passing of Alabama's third State Health Officer who had three consuming desires: (1) To live to

see his boy receive his degree as Doctor of Medicine; (2) To survive until the Association could point with pride to an organized health department in each county of the State; and (3) To continue virile until the end. Only the last was granted him.

Of his attributes much might be written but the breadth and depth of his humaneness could never be bound by the limits of the printed page. "By reason of this human touch—marvelous and quite indefinable—he was able to infuse into the public health machinery of this State, the same machinery which Cochran had carefully constructed a half century before, and which Sanders had valiantly defended and preserved for a quarter century, a *something*, which seemed immediately to vitalize and humanize it and to make it workable far beyond the fondest dreams of its author."

Dr. Welch died on the morning of August 22nd, 1928, in Montgomery, of angina pectoris after an apparent illness of less than twenty-four hours; and thus there slipped into the shadows another distinguished son of Alabama.

### Dr. J. N. Baker Succeeds Him

On April 18, 1930,\* Dr. J. Norment Baker, of Montgomery, a member of the Association for a quarter century, its Secretary 1906-1915, President 1915-1916, and a former member of its Board of Censors, became Alabama's fourth State Health Officer. "You can rest assured," said Dr. Baker to the Association in accepting the office, "that the old ship which you

\*Dr. Stuart Graves, of Tuscaloosa, and the writer were ad interim appointees.

have entrusted to my care will have every iota of manhood and courage I possess. You cannot expect more of any man, and I here and now pledge you that."

### The Journal Established

One final reference before the conclusion is written. As far back as 1885, when Dr. Benji. H. Riggs was President, the desirability of a monthly journal for the Association was discussed; and advocated in later years by Dr. Seale Harris, Birmingham, and Dr. W. W. Harper, Selma. July 15, 1931 witnessed the culmination of the plan, when the first number, a magazine of 44 pages, was published.

### Conclusion

The conclusion? It was written sixty-five years ago: "Perchance there sleeps in its native quarry in the bosom of this fair State....a block of spotless marble...Take that block, raise it high ...engraved deep in enduring characters the lines that will tell to future observers the triumph, the glory, and the fame" of this heritage of 47 and '68 and the years that have followed through from Mabry to Thigpen—the Association's President in 1935-'36.

"Is not such a gift," wrote Dr. Baker in the preface to 'A Compend for the Members of the Organized Medical Profession of Alabama—1928,' "the doubt of whose practicability and adaptability to the most modern methods of conducting both public health activities and scientific work having been entirely moved, quite worthy of preservation and perpetuation?"

### Chronology

1819	Alabama is admitted to the Union.	1860	(July 6) Dr. Peter Bryce becomes the first superintendent of the hospital for the insane.
1823	(December 22) The State's first Medical Practice Act is approved by Governor Israel Pickens, providing for examining boards at Huntsville, Mobile, Tuscaloosa, Cahawba, and Claiborne.	1866	The Societies at Mobile and Montgomery are incorporated a second time, the latter as the Montgomery Medical and Surgical Society.
1835	Additional examining boards authorized.	1868	(March 3) The Association is revived and reorganized in Selma, with Dr. A. G. Mabry as President, Dr. Jerome Cochran, Secretary. Dr. J. C. Nott, of New York, late of Mobile, is elected an honorary member of the Association.
1839	(January 30) The Medical Society of South Alabama, at Selma, is incorporated.		Dr. Wm. O. Baldwin, of Montgomery, is elected President of the American Medical Association.
1841	(December 21) The Mobile Medical Society is declared a body corporate.	1872	Dr. Jerome Cochran acquaints the Association with his plan to have the Association serve as a State Board of Health.
1847	The Association is organized at Mobile.	1873	A new constitution is adopted in Tuscaloosa.
1850	(February 1) The Sydenham Medical Society of Montgomery is incorporated.	1874	(February 23) Dr. Mabry dies.
	(February 13) The Association becomes a chartered body.		
1852	(February 6) Hospital for the insane authorized.		
1853	Dr. J. Marion Sims moves to New York City.		
1855	The Association convenes for its last session until 1868.		
1859	The Alabama Medical College is organized at Mobile, the first class being graduated in 1861.		

CONTINUED ON PAGE 25

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**Average Dosage.** *Prophylactic or Therapeutic.*

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Tedral SA: *Adults*—One tablet on arising and one tablet 12 hours later. Tablets should not be chewed. *Children*—Not established for children under 12.

Tedral Elixir: *Note:* One teaspoonful is equivalent to one-quarter Tedral tablet. *Children*—One teaspoonful per 30 lb body weight, every 4-6 hours, unless prescribed otherwise by physician. Should be given to children under 2 years of age only with extreme caution. *Adults*—One to two tablespoonfuls every four hours.

**Supplied.** Tedral: White, uncoated scored tablets in bottles of 24 (N 0047-0230-24), 100 (N 0047-0230-51) and 1000 (N 0047-0230-60). Also in Unit Dose—package of 10 x 10 strips (N 0047-0230-11).

Tedral SA: Double-layered, uncoated, coral/mottled white tablets in bottles of 100 (N 0047-0231-51) and 1000 (N 0047-0231-60). Also in Unit Dose—package of 10 x 10 strips (N 0047-0231-11).

Tedral Elixir: Dark red and cherry-flavored in 474 ml (16 fl oz) bottles (N 0047-0242-16).

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Full information is available on request.

## MAA History

CONTINUED FROM PAGE 23

- (April 15) The State Board of Censors renders its first report.  
County Medical Societies are chartered.
- 1875 (February 19) The Association becomes the Board of Health.  
First Committee of Public Health elected.
- 1877 (February 9) Second Medical Practice Act adopted.
- 1879 (February 12) Legislature makes first appropriation for public health.  
(April 11) Dr. Jerome Cochran is elected first State Health Officer.
- 1881 (February 28) Act is approved providing for the supervision of the public health in the several counties of Alabama.
- 1885 Unsuccessful effort is made to repeal the laws relating to public health.
- 1888 The complete, organization of all County Medical Societies is reported.
- 1892 (August 14) Dr. Peter Bryce dies.
- 1894 Birmingham Medical College is organized, the first class being graduated in 1895.
- 1896 (August 17) Dr. Jerome Cochran dies in Montgomery.  
Dr. William H. Sanders, of Mobile, is chosen to succeed him.
- 1898 The Jerome Cochran Lecture is established on recommendation of Dr. L. L. Hill, of Montgomery.
- 1899 The first lecture is delivered by Dr. J. T. Searcy, of Tuscaloosa, on "What Is Insanity?"
- 1903 The Medical Practice Act is upheld by the Supreme Court of the State.  
The State's public health laws are amended and reconstructed.  
Legislature prescribes branches of medical learning upon which applicants for the privilege of treating disease of human beings must be examined.
- 1906 A new constitution is adopted.
- 1907 Medical Practice Act amended as to require that all examinations be held in Montgomery.
- 1912 New charters are issued County Medical Societies.
- 1914 Alabama's first full-time health department is established in Walker County.
- 1915 Representation by delegates to the Association is made to correspond with the number of the county's representatives in the Legislature; but in no case less than two.  
Authority granted Association to amend charter by two-thirds vote of those present at annual or other lawful meeting of the Association.
- 1917 (January 9) Dr. S. W. Welch, of Talladega, succeeds Dr. Sanders as State Health Officer.  
Reciprocal relations are entered into with other states in the matter of medical licensure.
- 1918 (January 2) Dr. Sanders dies.
- 1919 The Legislature makes available increased appropriation for public health.  
(April 16) The Association welcomes home its members who served in the World War.  
(September 29) Boards of Censors of County Medical Societies are constituted Boards of Health for their respective counties.
- 1920 (January 1) Part-time health officers are abolished.
- 1923 (October 9) Dr. H. G. Perry dies—the Association's Secretary from 1915 and its Treasurer 1898 to 1915.
- 1927 Further appropriations for public health are made by the Legislature.
- 1928 (August 22) Dr. Welch dies in Montgomery.
- 1930 (April 18) Dr. J. N. Baker, Montgomery, is chosen his successor.
- 1931 (July 15) The first number of the Journal of the Association is published.
- 1935 Dr. C. A. Thigpen, Montgomery, is elected President of the Association. ●

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## Medical Ground Rounds

### Tuberculosis: Prevention And Treatment

UNIVERSITY OF SOUTH ALABAMA MEDICAL CENTER

Presented: January 27, 1977

William C. Gewin, M.D.

#### HISTORY

Tuberculosis appears to have affected man since pre-historic times. Potts' disease has been discovered in Egyptian mummies, and a Peruvian mummy showed a calcified tuberculous focus in the lung that is typical of the disease.<sup>1</sup> Susruta in India, during the fourth century B.C., described the disease as causing a "wasting or a general emaciation of the frame" accompanied by "hoarseness, aching pain in the chest, contraction of the sides and stoop of the shoulders." He goes on to describe "fever, burning sensation and expectoration of blood." About the same time, Hippocrates in discussing fractures and dislocations, mentions patients having kyphosis with hard and soft tubercles in the lungs.<sup>2</sup> Galen, about 130 A.D., also wrote about phthisis and its cure and expressed the belief that the exhalations of these patients were dangerous.<sup>1</sup>

In the seventh century the importance of tuberculosis was recognized by John Bunyan who called it "The Captain of the Men of Death."<sup>3</sup> In that same century the tubercle was discovered by De le Boe. The theory of the tubercle being the primary lesion in scrofula and phthisis is the basis for Richard Morton's *Phthisiologia* written in 1689. Because of the anatomical investigations of Morton and others, it became accepted that the caseous degeneration seen in scrofulosis and phthisis was a separate disease from the tubercles seen in miliary tuberculosis. It was not until the early nineteenth century that Laennec expressed the opinion that both were manifestations of the same disease. More than sixty years later in 1882, Robert Koch proved Laennec to be correct when he discovered the tubercle bacillus and initiated the modern period of the study of tuberculosis.<sup>1</sup>

The effective treatment of tuberculosis began with the introduction of streptomycin. Then it was discovered that combination chemotherapy prevented the emergence of resistant organisms. The most significant development came with the introduction of isoniazid which allows almost uniformly successful therapy.

#### SCOPE OF THE TUBERCULOSIS PROBLEM

In the last 50 years, there has been a marked decrease in the incidence of tuberculosis in the United States. Even before the development of effective chemotherapy the magnitude of the tuberculosis problem had begun to diminish. This trend was markedly accelerated by the use of

antituberculous drugs. In 1932, there was 96,500 new cases of active tuberculosis for a rate of 76.7 per 100,000 and 78,800 deaths at a rate of 62.9 per 100,000. In 1972 these figures had been reduced to 33,500 new active cases or 16.1 per 100,000 and 4,000 deaths, a rate of 1.9 per 100,000.<sup>4</sup>

The 1972 active case rates show great variation from state to state. Iowa had the lowest incidence of tuberculosis with 4.1 cases per 100,000 while Hawaii had the highest rate of 38.9 cases per 100,000. Alabama with a case rate of 26.2 per 100,000 was the highest in the continental United States.<sup>5</sup>

It has been estimated that about 15 million people in the U.S. are infected by the tubercle bacillus as evidenced by a positive PPD. Most of these tuberculin reactors are in the older age groups. It has also been estimated that approximately 300,000 reactors die each year while only 50,000 become newly infected. Thus there is a significant yearly decrease in the number of people infected.<sup>4</sup>

In Alabama, the case rates have also decreased. In 1967 there were 38.9 per 100,000 and only 22.1 per 100,000 in 1975. Deaths from tuberculosis have decreased from 285 in 1960 to 80 in 1974. Between 1965 and 1975 new cases decreased 45 per cent and deaths decreased 68 per cent. The average hospital stay decreased 91 per cent from 1 year to 33 days. Despite these improvements tuberculosis is still a major health problem in Alabama. In 1971, this state had the third highest rate of new cases in the nation and the highest death rate.<sup>6</sup>

#### PREVENTION

It has been estimated that each case of active tuberculosis disease results in 2 to 3 new tuberculous infections as indicated by a positive PPD. Of these new infections between 5 and 15 per cent progress to serious disease in 5 years. The rate of progression is dependent upon age with young children and adolescents having the greatest risk. After the first 5 years another 3 to 5 per cent will develop active tuberculosis at a later time.<sup>7</sup> The most effective way to prevent tuberculosis infection and disease is the rapid identification and treatment of patients with active disease. This is not always possible so two other methods of prevention are used. These involve vaccination with bacillus Calmette-Guerin (BCG) and chemoprophylaxis with isoniazid.

TABLE 1  
EFFICACY OF BCG

Trial	No. of Subjects		TB Cases		TB Case Rates/ 100,000		Efficacy (%)	Total Subjects	Total Efficacy
	Controls	Vaccinees	Controls	Vaccinees	Controls	Vaccinees			
North American Indians	1,457	1,551	238	64	1,563	320	80	8,420	
Chicago infants, high risk	1,665	1,716	65	17	223	57	75		
Georgia, general population	2,341	2,498	3	5	11	17	0	11,262	0
Puerto Rico, general population	27,338	50,634	73	93	43	30	31	191,827	7.9%
Georgia, Alabama, general population	17,854	16,913	32	26	13	11	14	64,136	4.6%
Great Britain, urban population	12,699	13,598	240	56	128	28	78	48,422	
South India, rural population	5,808	5,069	46	28	89	61	31		

Modified from reference 4

### Vaccination with *Bacillus Calmette-Guerin* (BCG)

BCG is an attenuated living bovine tubercle bacillus. It was first isolated in 1908 from the udder of a tuberculous cow. It was attenuated on bile potato media and was first applied clinically in 1921 to the newborn infant of a tuberculous mother.<sup>8</sup>

In many countries such as France, East and West Germany, Norway, Russia and Japan BCG vaccination is mandatory. In others such as Sweden, Denmark, the United Kingdom, Canada and India it is voluntarily practiced almost universally. Yet routine BCG vaccination is not recommended in the United States because controlled studies have indicated it would not be useful.

The first major controlled study of BCG use in the U.S. was begun in Muscogee County, Georgia, in 1947. The initial study included 11,262 school children.<sup>9</sup> Because of the low incidence of tuberculous infection this study was expanded to include Russell County, Alabama and everyone over 5 years of age. This expanded study, which began in 1950, involved 64,000 persons.<sup>10</sup> In these two studies subjects were tested with both 5TU and 100TU PPD. Those that had less than 5 mm of induration to the 100 TU dose were randomized to either control or vaccination group. The vaccination group received BCG by multiple puncture technique which was repeated in six months if the PPD failed to convert. About 40 per cent of the initial group was also revaccinated after three years.

It became obvious very early that most of the subjects who developed tuberculosis already had a positive PPD at the start of the study and were thus not candidates for BCG. After 20 years of follow-up, 47 cases of active tuberculosis developed in the initial 11,000 children. Of these 47 children, 36 cases had developed in subjects who initially reacted to PPD. Only three controls and five vaccinees developed tuberculosis. This corresponded to case rates of 10.7 per 100,000 for the controls and 16.8 per 100,000 for the vaccinees. This difference was not statistically significant. Thus, in this study, vaccination with BCG offered no protection against tuberculosis.<sup>9</sup>

In the expanded study it was again demonstrated that most of the subjects who developed tuberculosis already

had a positive PPD at the initiation of the study. Of the 234 cases of active disease after 14 years of follow-up, 176, or 75 per cent were reactors. The incidence of disease among the controls was 12.8 per 100,000 and among the vaccinees was 11.0 per 100,000. This was a difference of only 14 per cent among the 25 per cent eligible for BCG. When the whole population is considered, the reduction in the development of tuberculosis if all eligible people had been vaccinated would be only 4.6 per cent.<sup>10</sup>

These two studies have been criticized on several accounts. Some have suggested that the study group had a higher than normal incidence of subclinical atypical mycobacteria resulting in a lower than normal incidence of tuberculosis. Atypical mycobacteria does seem to have some protective effect, but it usually results in a positive reaction to 100TU PPD.<sup>11</sup> Those with a positive PPD at that strength were eliminated from the control group. It has also been suggested that the BCG used was not potent enough, but this is impossible to verify.<sup>4</sup> A third criticism has been that the technique of applying the BCG was possibly faulty.<sup>8</sup>

Other studies involving North American Indians and high risk infants in Chicago, plus studies in Puerto Rico, Great Britain and India showed a higher efficacy for BCG when compared to controls.<sup>17,18,19,20,21</sup> This efficacy varied from a high of 80 per cent in North American Indians to a low of 31 per cent in Puerto Rico. (Table 1)

In general, BCG is indicated only in situations where the infection rate is very high. The infection rate in the United States is generally too low for BCG to be effective.<sup>17</sup> BCG may be useful in uninfected persons with repeated exposure who cannot or will not obtain treatment.<sup>18</sup>

### Chemoprophylaxis

Chemoprophylaxis is an incorrect term in that infection by *Mycobacterium tuberculosis* is not prevented. What is prevented is the progression to active tuberculous disease. Tuberculous infection has essentially no mortality or morbidity while tuberculous disease has a significant mortality and morbidity. Each new case produces new infection in two to three others, and 90 per cent of all cases



of active tuberculosis arise from patients who were previously infected.<sup>4</sup>

Studies by the U. S. Public Health Service and others have clearly shown a benefit from treatment of patients with tuberculous infection by isoniazid.<sup>19</sup> In recent convertors, one study showed that treatment with isoniazid for five months caused reversion of the skin test to negative in all of 45 patients who had converted within the previous three months. Eighty-seven per cent of the 98 patients who had converted within the prior six months reverted back to negative after ten months of chemoprophylaxis.<sup>20</sup> In general, the combined U.S. Public Health Service studies have shown that treatment of tuberculous infection with isoniazid reduces the incidence of tuberculous disease by 75 per cent in the first year and by 50 per cent for each subsequent year up to at least 10 years.<sup>19</sup>

Because of the cost of chemoprophylaxis in large populations, studies have been done to determine those groups at greatest risk of developing tuberculosis. Recent convertors at any age have about 1 chance in 30 of developing tuberculosis in the first year. In household contacts, the annual risk is 1 in 30 and the risk is 1 in 75 in persons with inadequately treated inactive tuberculosis. Reactors with abnormal findings on chest x-rays have a yearly risk of 1 in 125. Also reactors under the age of twenty have a risk of 1 in 490 for the first 2½ years, but their risk continues throughout their lifetime. Adult reactors with normal chest films have a risk of 1 in 1,215 per year.<sup>21</sup>

Using the figures above it is possible to estimate the number of persons that must be treated in order to prevent one case of active tuberculosis. Thus in order to prevent

one case of active disease one must treat 48.3 skin test positive household contacts, 210 skin test negative contacts, 14.2 patients with inactive disease or 110.3 adolescents or 163.4 adults with normal chest films and a positive tuberculin test. Moulding estimated that the cost to prevent one case in each of these categories is \$483, \$2,100, \$824, \$4,743 and \$7,026 respectively. In his summary Moulding recommended treating all of these groups except positive reactors with normal chest x-rays.<sup>22</sup> (Table 2)

The conclusions that were drawn in the reports mentioned previously are based only on a cost-effectiveness basis. They do not take into account the mortality and morbidity associated with chemoprophylaxis. When the initial studies came out indicating the benefit of treatment with isoniazid the U.S. Public Health Service and the American Thoracic Society recommended that all people with positive tuberculin skin tests be treated with INH.

In the late 1960's, there began to be case reports of hepatitis in adults who were given isoniazid.<sup>23</sup> In 1970 there were several cases of tuberculosis on Capitol Hill in Washington, D.C. Over 2,000 employees were started on INH and over the next nine months 19 developed clinical liver disease and 2 died.<sup>24</sup>

As a result of this incident, investigations were conducted to determine the competing risks of hepatitis and tuberculosis. It was quickly determined that older adults were more prone to developing INH and associated hepatitis. Comstock and Edwards in a recent editorial in the American Review of Respiratory Diseases<sup>25</sup> examined the ratio of predicted cases of tuberculosis prevented to the number of hepatitis cases occurring during INH treatment. They determined in patients with a positive tuberculin skin

TABLE 2  
RISK OF DEVELOPING TUBERCULOSIS IN VARIOUS GROUPS OF INFECTED INDIVIDUALS

Groups	Risk of Tuberculosis	Cases/ 100,000	No. of Persons Treated to Prevent 1 Case (29)	Cost of Preventing One Case
Recent tuberculin convertors	1 in 30 (3.3%) in first year after infection	3,333.0	-	-
Household contacts of newly developed case				
Tuberculin positive	1 in 37 (2.7%) during 10 years of observation	270.3	48.3	483
Tuberculin negative	1 in 197 (0.5%) during 10 years of observation	50.8	210.0	2100
Previously known tuberculosis, sputum negative, inadequately treated	1 in 79 (1.3%) per year	1,266.0	14.2	824
Positive tuberculin reactors with abnormal pulmonary findings on chest roentgenogram	1 in 125 (0.8%) per year	800.0	-	-
Tuberculin-positive adolescents with chest roentgenograms normal or with calcifications	1 in 490 (0.2%) for initial 2½ years of observation	204.0	110.3	4743
Tuberculin-positive adults with normal chest roentgenograms	1 in 1,215 (0.08%) per year	82.3	163.4	7026

Modified from reference 4

test that at age 45, the competing risks were equal for the development of active tuberculosis or of hepatitis with isoniazid chemoprophylaxis for one year. Thus, if one were more concerned about the possibility of developing hepatitis than tuberculosis the age limit for treating tuberculin reactors would be lowered and vice versa. Currently the official recommendation of the Alabama Department of Public Health is that the following groups be treated with INH for one year in order of priority:<sup>26</sup>

- a. Household members and other close associates of persons with recently diagnosed tuberculous disease.
- b. Positive tuberculin reactors with findings on the chest roentgenogram consistent with nonprogressive tuberculous disease, without positive bacteriologic findings, and without a history of adequate chemotherapy.
- c. Newly infected persons (recent converters).
- d. Positive tuberculin reactors in the following special clinical situations:
  - (1) Prolonged therapy with adrenocorticoids
  - (2) Immunosuppressive therapy
  - (3) Some hematologic and reticuloendothelial diseases, such as leukemia or Hodgkin's disease.
  - (4) Diabetes mellitus
  - (5) Silicosis
  - (6) After gastrectomy
- e. Other positive reactors: Among persons less than 35 years of age who are positive tuberculin reactors, even in the absence of one of the four additional risk factors (such as contacts or converters) listed above, the benefit of INH therapy in preventing tuberculosis clearly outweighs the risk of hepatitis. Preventive therapy is mandatory for positive reactors through age 6 years and highly recommended to age 35 years, unless there are contraindications to the use of INH.

## CHEMOTHERAPY

Theoretically, the ultimate goal of chemotherapy would be to eliminate all viable tubercle bacilli from the infected host. In practice this is impossible to achieve except in very rare cases. Even with prolonged therapy with multiple drugs it is felt that there are still organisms present which could potentially multiply and cause a relapse of tuberculous disease. Fortunately, the present forms of chemotherapy kill sufficient numbers of organisms to allow host defenses to prevent relapse.

The largest numbers of bacilli,  $10^8$  are found in cavities. Hard caseous foci usually contain only  $10^5$  organisms. In most tuberculin reactors without active disease there are much smaller numbers of bacilli, often not more than 100. The small numbers of organisms present in tuberculin reactors without active disease explains why chemoprophylaxis with isoniazid will sometimes eradicate all viable bacilli as evidenced by reversion of the skin test to negative.<sup>27</sup>

The incidence of naturally occurring drug resistance to rifampin and streptomycin appears to be about 1 in  $10^6$  bacilli while about 1 in  $10^5$  are resistant to INH. Thus almost all cavitory lesions and many noncavitory lesions would contain organisms that were resistant to any of the major antituberculous drugs. By combining any two or three drugs the number of organisms necessary for finding

any one bacillus resistant to both would be  $10^{11} - 10^{12}$ .<sup>28</sup> Only in extremely advanced cases would the number of organisms be that high. Thus, for effective chemotherapy it is necessary to combine two drugs. Mutants that are resistant to one drug will be killed by the other and vice versa. Two-drug therapy will not be successful if either drug fails to kill all of the organisms sensitive to it, including those bacilli that are resistant to the other drug. If this happens, the possibility of double-drug resistance greatly increases.

Because of the importance of rapidly reducing the number of organisms within the host, the concept of two-phase chemotherapy became generally accepted. This consists of an initial period of intensive drug therapy with three drugs when the number of organisms is large, followed by a longer period of treatment with only two or one drug when the bacillary population is greatly decreased. The initial studies which showed a benefit in two-phase chemotherapy included para-aminosalicylic acid (PAS) as one of the trial drugs. PAS is not a potent antituberculous agent and is generally poorly tolerated and poorly taken by patients. More recent studies using newer, more effective drugs seem to indicate that initially using three drugs has no advantage if there are not large numbers of organisms that are resistant to one of the two drugs.<sup>27</sup> At the present time most patients with cavitory tuberculosis are placed on three drugs, usually isoniazid, ethambutol and streptomycin, until the sensitivities have been reported. At that time one of the three drugs is stopped. In most cases streptomycin would be stopped unless the organism was resistant to one of the other two drugs.

## Drugs

There are currently eleven approved drugs that are effective in treating tuberculosis. Of these, isoniazid, ethambutol, rifampin and streptomycin are considered "primary" drugs. This is because the ratio of effectiveness to side effects is good. PAS, which has been classified as a "primary" drug, has now been reclassified as a "secondary" drug because of the high incidence of side effects. Except for the four aminoglycosides, the antituberculous drugs are effective orally.

## Isoniazid

Isoniazid was first approved for use in 1952. It is still the most commonly used antituberculous drug and has many advantages over the others. It has good patient acceptability and is usually given in one daily dose of 300 mg in adults. In children the dose should be 10-14 mg per kg per day because of rapid excretion. It is excreted by the liver and kidneys and is a bactericidal drug that works by interfering with DNA synthesis.

Until the late 1960's, reactions to INH were thought to occur with a frequency of less than 0.5 per cent and to be easily reversible. In 1969, Scharer and Smith found that 10 per cent of the patients who were receiving isoniazid developed elevated serum transaminase levels during the first two months of treatment. In most instances the liver enzymes returned to normal despite continued therapy with INH.<sup>29</sup> In 1970, a group from Vanderbilt Hospital reported five cases of jaundice and two deaths from isoniazid.<sup>30</sup> The possible hepatotoxicity of isoniazid re-



Table 3

## DRUG THERAPY OF TUBERCULOSIS

DRUGS AND DOSAGE	EXCRETION	RELATIVELY COMMON REACTIONS	LESS COMMON REACTIONS	MODE OF ACTION
1. Isoniazid 5 mg/kg/body wt.p.o. (usually 300 mg QD as single dose)	Renal Hepatic	Peripheral neuritis Hepatic dysfunction	Central nervous system effects: insomnia, headache, restlessness, psychosis, increased reflexes, muscle twitching, paresthesias, convulsions (high dosage), drowsiness, excitement, delay in micturition Optic neuritis and optic atrophy Constipation, dryness of mouth, allergic reactions, hepatitis, agranulocytosis, exfoliative dermatitis, rheumatic symptoms	Interferes with DNA synthesis and intermediary metabolism
2. Ethambutol 15 mg/kg p.o. (usually given as single dose)	Renal	Optic neuritis	Anaphylactoid reaction, dermatitis, pruritus, joint pain, anorexia, fever, headache, dizziness, mental symptoms, peripheral neuritis, elevated uric acid, liver damage	Inhibits RNA synthesis and phosphate metabolism
3. Rifampin 600 mg/day p.o.	Hepatic	GI upset	Headache, drowsiness, ataxia, mental symptoms, visual disturbances, weakness, fever, pain in extremities, numbness, hypersensitivity, urticaria, rash, eosinophilia, sore mouth, hepatitis, thrombocytopenia, leukopenia, anemia, immunosuppression, renal damage, elevated uric acid	Inhibits RNA polymerase, blocking DNA-directed RNA synthesis
4. Streptomycin 1 gm/day or 2-3 times/week IM	Renal	Eighth nerve toxicity, vertigo, tinnitus, dizziness, deafness Paresthesias of hands, tongue and face	Pyrexia, headache, dermatitis, pruritus, renal insufficiency, transient dermal anesthesia, nausea and vomiting	Inhibits protein synthesis by direct action on ribosomes
5. Aminosalicyclic acid 4 gm t.i.d., p.o. (sodium salt should be 5 gm t.i.d., p.o.)	Renal	Gastrointestinal toxicity: nausea, vomiting, anorexia, diarrhea	Fever, jaundice, pruritus, hypoprothrombinemia, dermatitis, hypothyroidism, renal insufficiency, anaphylactoid reaction, hepatitis	Unknown
6. Ethionamide 0.5 gm or 1 gm p.o. daily in one dose	Rapidly in- activated site? Little free drug excreted in urine	Gastrointestinal toxicity: anorexia, nausea, vomiting, diarrhea	Hepatotoxicity, purpura, gynecomastia, impotence, peripheral neuropathy, psychic depression, drowsiness, asthenia, acne, allergic skin rash, difficulty in diabetic control, renal impairment	Inhibits protein synthesis
7. Pyrazinamide 0.5-1.0 gm t.i.d., p.o.	Renal	Hepatotoxicity Uric acid retention	Gout, arthralgia, anorexia, nausea and vomiting, dysuria, malaise, fever	Unknown
8. Kanamycin 1.0 gm IM 3-5 times weekly	Renal	Eighth nerve toxicity: dizziness, tinnitus, deafness Renal irritation: albuminuria, cells and casts Local irritation and pain	Renal damage, eosinophilia, allergic dermatitis, fever, headache, paresthesias	Inhibits protein synthesis
9. Cycloserine 250 or 500 mg q 12 hr p.o.	Renal	Central nervous system toxicity: headache, vertigo, lethargy, tremor, dysarthria, apraxia, coma, behavioral changes, psychotic episodes, convulsions		May inhibit cell wall synthesis
10. Capreomycin 15 mg/kg/day, usually 1 gm	Renal	Renal damage, vestibular damage, local pain, eosinophilia, rash, fever	Anaphylaxis	Inhibits protein synthesis
11. Viomycin 1 gm q 12 hr 2 days/week IM	Renal	Renal impairment: albuminuria, cells and casts Eighth nerve toxicity: dizziness, tinnitus, deafness Allergic reactions with eosinophilia (skin, fever, etc.)	Fluid retention with edema, renal damage, electrocardiographic abnormalities, electrolyte pattern disturbances	Inhibits protein synthesis

From reference 3

TABLE 4

REVIEW OF 59 PATIENTS WITH PREVIOUSLY UNDIAGNOSED TB

Average Duration of Illness	13. weeks
Average Weight Loss	22.75 pounds

<u>Symptoms</u>	<u>% Positive</u>
Cough	89
Fever	65
Night Sweats	59
Chills	43
Hemoptysis	28
TE Exposure	39
Smoking History	74
Alcohol Abuse	57

	<u>Laboratory Values</u>		
	<u>average</u>	<u>high</u>	<u>low</u>
Na <sup>+</sup>	134.	143.	103.
K <sup>+</sup>	4.4	5.5	3.1
CO <sub>2</sub>	25.9	34.	19.
Cl <sup>-</sup>	98.	108.	63.
WBC	9,388.	24,600.	3,900.
Hct	35.2	49.9	17.5
PO <sub>2</sub>	67.	96.	42.

ceived national attention when two Capitol Hill employees died in late 1970.

In 1968 and 1969, there were seven cases of tuberculosis and two deaths among persons employed on Capitol Hill. Skin tests were performed on 13,586 other Capitol Hill workers. Of these, 2,920 developed a positive PPD of which 2,321 were begun on chemoprophylaxis with isoniazid. Nineteen of those on isoniazid developed hepatitis. The hepatitis attack rate for the 2,321 patients on isoniazid was 8.2 cases per 1,000. The attack rate for 2,154 matched controls not on isoniazid was 0.5 per 1,000.<sup>24</sup>

In response to this further evidence of a link between isoniazid and liver disease, the Public Health Service initiated a prospective study of patients receiving isoniazid chemoprophylaxis. This study included 13,838 patients in 21 cities. There were 174 cases of probable and possible hepatitis for a case rate of 1.26 per cent. The incidence of elevated liver enzymes was 13.3 per cent.<sup>4</sup> In another study at Charity Hospital in New Orleans, 37 of 427 (9 per cent) hospital employees developed liver enzyme abnormalities.<sup>31</sup> Because most patients who develop liver abnormalities will return to normal despite continuation of isoniazid, the current recommendations are that routine liver function testing should not be done on asymptomatic patients on isoniazid. The isoniazid should be stopped only if the patient develops clinical signs of hepatitis.

Aside from the hepatotoxic effects of isoniazid, other less common reactions include peripheral neuritis, insomnia, headache, convulsions, agranulocytosis, methemoglobinemia, optic neuritis, various skin reactions and a drug induced systemic lupus erythematosus. The peripheral neuritis is generally prevented by the concomitant administration of pyridoxine. The other side effects are generally rare.

## Rifampin

Rifampin was developed in Milan, Italy in 1963. It is bactericidal against *Mycobacterium tuberculosis* as well as many gram-positive and gram-negative organisms. It is also active against *M. leprae* and some atypical mycobacteria. It works by binding to RNA polymerase and inhibiting the initiation of RNA synthesis. The dose is 600 mg per day in adults and 15 mg per kg per day in children. It is excreted by the liver. The incidence of naturally occurring resistance to rifampin is very low but when it is used alone it is associated with rapid development of resistance.

Like isoniazid, rifampin was initially thought to be remarkably free of adverse reactions. With increasing use a number of side effects have now become recognized. The most common reaction is nausea, epigastric distress and diarrhea. This is rarely severe enough to cause discontinuation of the drug. Rifampin is also associated with a rash. About 10 per cent of patients on rifampin develop elevations of SGOT. The incidence of clinical hepatitis varies depending on other drugs that are being taken, alcohol intake and the presence or absence of pre-existing liver disease. On the average about 2 per cent of patients on rifampin will develop clinical hepatitis.<sup>27</sup>

Of major concern is the greatly increased incidence of hepatic dysfunction when a combination of isoniazid and rifampin is used. One report compares the toxic reactions in 105 patients on rifampin and isoniazid to the reactions in 72 patients on rifampin and ethambutol. Of the patients on isoniazid and rifampin 37 (35 per cent) had evidence of liver dysfunction and 14 (13 per cent) had elevated serum transaminases and elevated serum bilirubin. This compared with 7 patients (10 per cent) with elevated transaminases of which only one also had an elevated bilirubin in the group receiving rifampin and ethambutol.<sup>32</sup> Other studies seem to confirm that the combination of rifampin and isoniazid has a greater incidence of liver toxicity than either used separately. It may be that rifampin makes the liver more susceptible to the toxic effects of isoniazid.<sup>4</sup>

When rifampin is given on a less than daily basis it is associated with a number of often severe reactions. These include flushing and itching of the skin, severe abdominal pain often with nausea, vomiting and diarrhea, fever, chills, headaches, dyspnea, wheezing, hypotension, purpura and thrombocytopenia and renal failure. These reactions most likely represent an allergic response since circulating antibodies to rifampin are often found in these patients. Because of the high incidence of severe reactions the use of rifampin for intermittent therapy is not recommended.

The allergic reactions associated with rifampin do not occur only in patients on a course of intermittent chemotherapy. A recent report from Italy indicates that the most severe cases of acute renal failure occur in patients on continuous therapy who take the drug irregularly.<sup>33</sup> The poorly understood immunologic reactions plus the expense and liver toxicity, especially when used with isoniazid, have led to the recommendation that rifampin not be used for primary therapy of tuberculosis. At the present time its use should be reserved for those patients requiring retreatment.



## Ethambutol

The combination of ethambutol and isoniazid is now the most commonly used regimen for the treatment of tuberculosis. Ethambutol is very well tolerated and is usually given in a single daily dose of 15 mg per kg. It is a bacteriostatic drug which acts by inhibiting RNA synthesis and phosphate metabolism. The major side effect is ocular toxicity. This seems to be dose related and is only a problem at a dosage of 25 mg per kg per day or greater. Routine ocular examination of patients receiving the recommended dosage of ethambutol is not necessary unless questioning elicits a history of decreased vision.

## Streptomycin

Streptomycin was the first drug found to be effective against *M. tuberculosis*. It is given in a dose of 1 gm per day im and is excreted through the kidney. Its effect is to inhibit protein synthesis by direct action on the ribosomes. Like the other antituberculous aminoglycosides, streptomycin is unable to kill tubercle bacilli under acid conditions, such as occur intracellularly. Streptomycin is bactericidal in the alkaline extracellular environment where most organisms are found. The major toxic effects of the aminoglycosides are well known in clinical medicine and consist mainly of ototoxicity and nephrotoxicity. (Table 3)

## Intermittent Chemotherapy

One of the major problems in the treatment of tuberculosis has been the difficulty persuading patients to take the medicine regularly for long enough to prevent reactivation. One possible solution is the use of intermittent chemotherapy that could be given under supervised conditions.

The first major clinical trial of intermittent chemotherapy was conducted at the Tuberculosis Chemotherapy Center, Madras, in the early 1960's. In this initial study, a daily unsupervised regimen of isoniazid 200 mg and PAS 10 gm was compared to a twice weekly regimen of streptomycin 1 gm im and isoniazid 650 mg po given under the direct supervision of the clinic staff. Both groups were treated for 12 months. At the end of the year of therapy, 89 per cent of the daily unsupervised group and 94 per cent of the patients receiving intermittent therapy were bacteriologically negative.<sup>34</sup> After four years of follow-up, the relapse rates were 12 per cent for the intermittent group and 15 per cent for the group on daily INH and PAS.<sup>35</sup>

Since that time, other studies<sup>36,37,38,39,40</sup> have been conducted which confirm the effectiveness of intermittent chemotherapy. These studies seem to indicate that twice weekly therapy is just as effective as three times a week, but that once a week therapy is not effective. These studies also indicate that a short period of daily therapy with three drugs (usually 2-3 months) does provide added protection against resistant organisms.

A combination of INH and streptomycin seems to be the most effective regimen for intermittent use, but INH and ethambutol are also effective. Rifampin is extremely effective when given intermittently but the toxicity of intermittent rifampin is significant and its use is not recommended.

The current recommendations from the American

Thoracic Society are that intermittent chemotherapy "is best reserved for patients who cannot be relied upon to take drugs on their own. The only alternative to long-term hospitalization for these individuals is directly administered medication, using either daily or twice weekly regimens." It is recommended that an initial period of conventional daily therapy of 1 to 4 months be used. This should be followed by twice weekly therapy with INH 15 mg per kg po along with either streptomycin 25-30 mg per kg im or ethambutol 50 mg per kg po. This regimen should be continued for 18 months after the first negative culture.<sup>41</sup>

## Short-Course Chemotherapy

The currently recommended duration of therapy is 18 to 24 months after the sputum culture becomes negative. This recommendation is based mainly on a report of a clinical trial by the British Medical Research Council which compared chemotherapy of 6, 12 and 24 months duration.<sup>42</sup> This study showed that a regimen of INH and PAS with an initial period of supplemental streptomycin had an unacceptably high relapse rate when therapy lasted only six months or one year. It was also shown that most of the relapses occurred with organisms that were susceptible to the original regimen. The conclusion from this was that therapy for one year or less was not sufficient to prevent relapse.

In the past few years, there has been some indication that with newer antituberculous drugs it might be possible to reduce the duration of therapy. The first major study to investigate this possibility was a cooperative effort between the East African Tuberculosis Investigation Centre and the British Medical Research Council.<sup>43,44</sup> They studied four drug regimens which were (1) streptomycin, INH and rifampin, (2) streptomycin, INH and pyrazinamide (PZA), (3) Streptomycin, INH and thiacetazone (not approved in the U.S.) and (4) streptomycin and INH. All of these regimens were for 6 months and were compared to a control of INH and thiacetazone for 18 months with streptomycin for the initial 2 months. At the end of 6 months of therapy, all of the drug regimens showed good results in obtaining negative sputum cultures.<sup>43</sup> But, over the next 12 months, the regimens with only two drugs and the two drugs plus thiacetazone showed a significant relapse rate. The relapse rate for the group receiving rifampin was only 2 per cent which compared favorably to 3 per cent for the control group and 10 per cent for the regimen containing PZA.<sup>44</sup>

A second East African study<sup>45,46</sup> and other studies of the efficacy of short-term chemotherapy<sup>47,48</sup> have shown that combination therapy with INH, rifampin and ethambutol is just as effective as INH, rifampin and streptomycin and that both are only slightly more effective than INH and rifampin alone. These studies also demonstrate that the relapses that do occur are usually within the first 6 months after cessation of therapy and that the organisms are usually susceptible to the original drugs and respond well to conventional therapy. At the present time, short-term chemotherapy is not recommended in the United States but in the near future it is possible that six-month chemotherapy might be the accepted treatment.

## Hospitalization

Earlier it was stated that between 1965 and 1975 the average hospital stay for tuberculosis in Alabama decreased from 1 year to 33 days. The decrease in hospital stay is based on studies which show not only that patients do just as well when treated as inpatients or as outpatients, but also that the infectivity of patients disappears very shortly after being started on chemotherapy.

Prior to therapy, the infectiousness of a particular patient seems most related to the number of organisms in his sputum and the nature of his respiratory explosive effort. Once chemotherapy is started there appears to be no association between infectiousness and the bacteriologic status of the sputum.<sup>49,50</sup> The greatest risk of infection occurs prior to diagnosis and the institution of therapy.

It is generally accepted that infectivity disappears within 10 days after initiation of therapy. Unless the patient is toxic further hospitalization is not required. Usually within the first week to ten days of therapy the patient will begin to gain weight, he will become afebrile, his cough will decrease and there will be a decrease in the number of organisms seen on sputum smear. Once the patient shows a general improvement he should be discharged from the hospital. While there the patient should be told about the nature of his illness and the necessity for continuing to take his medications for a long period of time. After discharge, regular x-rays and sputum examinations are important to evaluate each patient's response to and continuation of therapy. When a patient has completed an adequate course of therapy he should be considered cured and lifetime follow-up is unnecessary.

## CASE REVIEWS

Between July 1, 1974 and June 30, 1976, there were 59 patients admitted to the Tuberculosis Service at the University of South Alabama Medical Center who were proven to have tuberculosis disease that had not been treated previously. In most of the patients the diagnosis was made by a positive AFB smear. Several other patients were clinically suspected to have tuberculosis and were discharged on antituberculous therapy pending culture results. Most of these patients are followed by the Board of Health after discharge and culture results are not reported back to the charts at the medical center. Thus, there may be some patients who had a negative AFB but a positive culture who are not among the 59 included above.

The charts were reviewed on the 59 patients who were proven to have tuberculosis first diagnosed during the two year period. The history was examined for the estimated duration of illness and estimated weight loss, if any, and for the presence or absence of cough, fever, chills, night sweats, hemoptysis, exposure, smoking and ethanol abuse. Laboratory values checked included electrolytes, white blood count, hematocrit and  $PO_2$ . (Table IV)

The average duration of clinical illness was 13 weeks with a high of one year and a low of zero in a patient who was discovered to have tuberculosis on a routine chest x-ray. The average weight loss was 22 3/4 pounds. Eighty-nine per cent of the patients had a cough, 65 per cent had fever, 59 per cent had night sweats, 43 per cent had chills and 28 per

cent had hemoptysis. Thirty-nine per cent gave a positive history of exposure while 74 per cent of the patients smoked and 57 per cent drank excessively.

The average patient had a white blood count of 9,388 and a hematocrit of 35.2. The highest WBC was 24,600, while the lowest was 3,900. The  $PO_2$  ranged from 42 to 96 with an average of 67 mm Hg.

The average electrolytes were all normal except for the sodium which averaged 134 mEq per liter. The highest sodium was 143 mEq per liter but the lowest was 103 mEq per liter. Twenty-four of the 59 patients (40 per cent) had sodium levels below the normal range for this laboratory. A review of the literature reveals that in large scale studies the incidence of hyponatremia associated with tuberculosis has been 10 per cent.<sup>51</sup> The reason for the high incidence of hyponatremia at this institution is not clear. The most widely accepted mechanism for the hyponatremia associated with tuberculosis is the syndrome of inappropriate secretion of antidiuretic hormone (SIADH). Vasopressin has been isolated from the lung of a patient with tuberculosis.<sup>52</sup> An attempt was made to document SIADH in five of the patients with hyponatremia but in only two was adequate information obtained. Both of these patients fit the criteria for SIADH.

## REFERENCES

Available upon request. ●

## SCHOOLS WILL REFUSE FUNDS

Four medical schools have stated publicly they will refuse federal capitation assistance rather than be forced to accept U.S. citizens from foreign medical schools. The four schools planning to oppose the forced-transfer provision of the new health manpower bill are Indiana U., Yale U., Stanford U., and Wright State U. in Dayton, Ohio. ●

## DEATH RATE REPORTED FOR LEGAL ABORTIONS

The Center for Disease Control, Atlanta, Ga. has reported the death rate for legal abortion in the United States for three years, 1972-1974. Records on almost 2,000,000 legal abortions were analyzed:

Death rate averaged 3.9 for each 100,000 legal abortions. Death rate for continuing pregnancy and childbirth during the same three years was 14.8 per 100,000 live births.

Duration of pregnancy was the most important risk factor. Abortions during the first 12 to 13 weeks of pregnancy carried relatively little risk. Death rates were higher for older women, nonwhites, and for those whose pregnancies were interrupted later in the cycle.

There were 24 deaths related to legal abortion in 1972, 26 in 1973, and 26 in 1974.

Among women older than 40 years, the death rate was more than four times that of the teenage group, which had the lowest rate. Women of nonwhite races obtaining legal abortions had mortality three times higher than white women. ●



# TITANIC

by

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On the clear, calm, bitterly cold star-embazoned night of April 14, 1912, the impossible happened. The *Titanic* sank. It was the largest and safest ocean liner in the world, at 60,000 tons with a sequence of watertight compartments separable by a series of electrically operated doors which could quickly seal off portions of the ship in event of a hole in the hull, thus making the ship unsinkable. Since the ship was "unsinkable," little thought had been given to what might happen should it, in fact, sink. The Honorable Alexander Carlisle, designer of the ship, later recalled that while hours were spent discussing the types of furniture to be used in the luxurious suites, the types of drapes for the salons, the balustrades, and a myriad of other details of furnishings, the lifeboat capacity was discussed for about "five or ten minutes." Thus, the lifeboat capacity was sufficient for only a fraction of the total number of passengers aboard, a fact which in part accounted for the survival of only 705 of the 2,207 men, women and children aboard that fatal night.

Another curious fact which contributed to the great loss of life and wealth was the casual, almost carefree, manner in which the disaster was approached, right past the striking of the iceberg and almost to the moment the great 882-foot ship disappeared beneath the lapping waves of the North Atlantic. Also tragic were the multiple warnings and distress signals which were ignored by the passengers, potential rescuers nearby, and even many of the crew themselves.

During the day of Sunday, April 14, the *Titanic* had received at least seven separate warnings of icebergs in the area. Nevertheless, she sped on at 22.5 knots through the moonless night that evening. Around 10:00 p.m., the nearby liner *Californian*, just ten miles away and with the *Titanic* in eyesight at the time of the disaster, telegraphed the hazards of icebergs in the immediate vicinity. Morse code operator J. G. Phillips on the *Titanic* was tired and busy with personal messages of important passengers, so he snapped back, "Shut up; shut up! I am busy." The *Californian* had no passengers aboard and had stopped for the night, blocked by drifting ice. She never made contact with the *Titanic* again and did not respond to later calls for help.

At 11:40 p.m., night watch Frederick Fleet saw the oncoming iceberg and immediately banged the warning bells and called the bridge by speaker tube. The bridge asked, "What did you see?" Fleet replied, "Iceberg right ahead." The voice at the other end courteously replied, "Thank you," then nothing happened for the better part of a minute as the ship continued to race directly at the

iceberg. At the last moment she turned to the port to slip past the gigantic iceberg. There was no great crashing halt, only a soft scratching with a slight shudder. Most passengers, if they noticed at all, thought it was some slight mishap—perhaps something falling in the kitchen. Some passengers ran out onto the deck and saw the iceberg fading off astern; but they then returned indoors to resume their drinking and bridge playing. Mr. Fleet resumed his night watch, and many passengers went to bed.

As things began to look more serious, stewards explained to guests, "In a few hours we'll be on the way again." Another direct quote (to Mr. Harvey Collyer) was, "We've struck an iceberg—a big one—but there's no danger. An officer told me so." John Jacob Astor said something similar to his wife. Major Peuchen later noticed that the boat was listing toward the bow: "Why, she is listing! She should not do that! The water is perfectly calm and the boat has stopped." Mr. Hays replied placidly, "Oh, I don't know. You cannot sink this boat." Others also noticed the downward slant, but it seemed tackless to mention the matter.

Shortly after midnight, Thomas Andrews, Managing Director of Harland and Wolff, which had built the *Titanic* in Belfast, explained to Captain Smith the mathematical certainty that the ship must sink. As Andrews quietly explained to the Captain, the *Titanic* could float with any two of her sixteen watertight compartments flooded. She could even float with all of her first four compartments gone. But no matter how it was calculated, she could not float with all of her first five compartments full. The worst disaster anyone had imagined was a collision damaging perhaps two or at most three compartments. Yet, the iceberg had acted as a giant canopener and, as the ship slid past in the night, had opened a 300 foot gash below the waterline which crossed the first five compartments. The bow would sink so low that the water in the fifth compartment must overflow into the sixth. When this was full, it would overflow into the seventh, and so on. It was a mathematical certainty, pure and simple.<sup>1</sup>

## Centralization and Decentralization

Centralization is undesirable. At least, it is usually seen as undesirable by many of the participants in the services provided by the centralized system or facility. Ideally, each person should have his own castle with unlimited resources at his beck and call. There are only two overall reasons for centralization, and they are related: (1) economy and (2) load focusing. It is impossible for each community hospital, regardless how small, to have its own linear accelerator, CAT (computerized axial tomography) scanner, cardiac catheterization laboratory, open heart surgery team, etc. There is simply not enough money to fund them for each hospital. In addition, even if such a dispersal were fundable, the case load in some would be so low that expertise would wither, technical competence would be lost by many from lack of practice, and quality of care (as measured by mortality and morbidity) would deteriorate. The U.S. Veterans Administration had data several years ago showing that the open-heart cardiac surgery centers in the VA system which had the lowest case loads had the highest

morbidity and mortality rates. While one can argue that the nature of the cases was not comparable in the heavy load vs. the light load centers, the differences did not appear to be attributable to differences in the nature of the cases. The clear implication is that insufficient practice leads to loss of technical and teamwork proficiency on the part of the health care professionals. One criterion for choice of therapy in hyperthyroidism between radioiodine, drugs, or surgery is "availability of a surgeon with wide experience and continuing practice in operations involving the thyroid (at least three per month)"<sup>2</sup>. Laboratories which perform rare procedures and do so infrequently tend to give unreliable results at high costs. Thus, "load focusing" is necessary for both *proficiency* and *economy*.

Long ago, there was little centralization of medical facilities. Specialized resources were meager and widely dispersed. Every physician was self-sufficient and provided nearly all services, such as they were. Along with technological growth and expansion of the body of medical knowledge came focusing of resources in "centers."

These concentrations permitted a few physicians to see large numbers of patients and become highly experienced and skilled in limited areas; i.e., specialists. I've worked in the Thyroid Clinic at Columbia-Presbyterian Hospital in New York where they see 50 patients with thyroid diseases in a single morning. One can see all manner of variations and complications of thyroid disorders there in a brief time. The Thyroid Unit at the Massachusetts General Hospital in Boston sees almost as many. Guy's Hospital in London shortly after the mid-nineteenth century had a remarkable concatenation of patients and highly perceptive physicians. In endocrinology alone, Addison described adrenal cortical insufficiency (as well as pernicious anemia); Gull described adult myxedema; and Fagge described cretinism.

However, from the viewpoint of many users centralization has a number of disadvantages. Two of the main sources of dissatisfaction are (1) inaccessibility and remoteness, and (2) the necessity for sharing. Lack of access is a major problem and is related to the fact that the facility is shared between many individuals for the overall good of the community rather than dedicated to one or a very few users. This means waiting lines, formal structuring of organization and actions, rigidity of decisions and policies, an impersonal approach or depersonalization of services, and overall inconvenience for the users. One must remember here that convenience is not a trivial item. "Convenience" of a patient to a nursing station may mean the difference between resuscitation begun within one minute or longer than five minutes after a cardiac arrest, thus the life or death of the patient. Similarly ready access to a physician and to medical care, or "convenience of a physician and facility," is often seen in rural areas as crucial to good health care delivery. Furthermore, the populace often seems extremely frustrated and irritated by the lack of ready accessibility of medical care. Thus, we have at present a major push towards decentralization, and thus thrust is particularly evident and forceful in Alabama.

It is, of course, impossible for responsible physicians to disagree with the goal of ready access for the entire populace to health care at a reasonable cost. However, the politicians do not—or, more precisely, the public at large which insists through its elected officials does not—seem to possess the understanding or will to be deliberate in

devising a rational system. Rather, there is a tendency to "hit a lick here, then hit a lick there" on the basis of local initiative at geographically dispersed sites around the state. Another serious problem for the medical schools is the tendency to confuse *service* programs with *educational* programs. If a legislative body insists on appropriating funds to one of the state's medical education programs for purely service functions (e.g., insists that UAB send family practice residents to provide medical care in prisons without providing an education component), the accrediting agencies simply revoke accreditation, and we've lost not only the educational program but also the service which was the goal of the appropriation. *Educational institutions* must put on *educational programs* if those programs are to survive.

Since it appears widely considered desirable for the State's medical schools to assist in a very direct way in providing medical manpower for small communities (i.e., to actually participate in directly providing physicians, as opposed to doing it indirectly by educating more physicians—which, of course, also takes longer), we may assume that the state's medical schools should help establish family practice residency programs in all towns in Alabama with populations greater than 2,500, particularly since the trade areas of many of these include much larger populations. There are 123 towns and cities in Alabama with populations greater than 2,500<sup>3</sup>. If the entire state appropriation to the University of South Alabama College of Medicine for 1976-77, that is \$5.65 million, were equally distributed among these 123 locations, each would receive \$45,935. This amount would not even pay for a full-time secretary, office rent, supplies and telephone, plus one medical director, much less establishment of a model family practice center and pay other expenses absolutely required by the accrediting bodies for accreditation of such residencies. It is sometimes said that we should have a few really good programs rather than many mediocre or poor programs; but in this extreme example there would be no programs established at all, if they were dependent upon these equally spread (i.e., greatly decentralized) attempts. Only by some focusing, by some aggregation of resources to fewer locations, can any viable programs be established at all. It is worth noting that, although Alabama now has about 4 family practice first year positions ("internships") as opposed to none four years ago, *none of these are yet fully accredited*. They are all "provisionally accredited," which is a somewhat precarious condition.

As with many administrative decisions, the decisions as to where to locate such centers, if they are to be established at all, is a question of where to draw the lines. However, at present the question for the Whole State of Alabama, taken together, is, "Who is drawing the lines?" And the answer is nobody; no single entity. It is mainly a matter of local initiative.

No analogy is perfect, and this one is no exception. The "system" of medical care and medical education as a whole throughout the State of Alabama including both medical schools is intended as analagous to the *Titanic*, not just the programs at the UAB Medical Center, although UAB can serve as an illustrative example. Some numerical facts are of interest here. At UAB, the annual compensation for faculty members of the medical school alone (not counting

CONTINUED ON PAGE 41



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age requires that potential benefits be weighed against possible hazards to the fetus. Zaroxolyn appears in the breast milk. Not for pediatric use. **Precautions:** Perform periodic examination of serum electrolytes, BUN, uric acid, and glucose. Observe patients for signs of fluid or electrolyte imbalance. These determinations are particularly important when there is excessive vomiting or diarrhea, or when parenteral fluids are administered. Patients treated with diuretics or corticosteroids are susceptible to potassium depletion. Caution should be observed when administering to patients with gout or hyperuricemia or those with severely impaired renal function. Hyperglycemia and glycosuria may occur in latent diabetes. Chloride deficit and hypochloremic alkalosis may occur. Orthostatic hypotension may occur. Dilutional hyponatremia may occur in edematous patients in hot weather. **Adverse Reactions:** Constipation, nausea, vomiting, anorexia, diarrhea, bloating, epigastric distress, intrahepatic cholestatic jaundice, hepatitis, syncope, dizziness, drowsiness, vertigo, headache, orthostatic hypotension, excessive volume depletion, hemoconcentration, venous thrombosis, palpitation, chest pain, leukopenia, urticaria, other skin rashes, dryness of mouth,

hypokalemia, hyponatremia, hypochloremia, hypochloremic alkalosis, hyperuricemia, hyperglycemia, glycosuria, raised BUN or creatinine, fatigue, muscle cramps or spasm, weakness, restlessness, chills, and acute gouty attacks. **Usual Initial Once-Daily Dosages:** mild to moderate essential hypertension—2½ to 5 mg; edema of cardiac failure—5 to 10 mg; edema of renal disease—5 to 20 mg. Dosage adjustment may be necessary during the course of therapy. **How Supplied:** Tablets, 2½, 5 and 10 mg

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dentistry, allied health, nursing, optometry, etc., but counting all medical school faculty) is more than \$14 million annually, of which more than \$10 million is for tenured faculty (older and more senior, about half the faculty). These figures do not include technicians, secretaries, administrative officers (unless they also hold faculty appointments), supplies, teaching equipment, laboratory supplies for students, research assistants, etc., all of which total between \$45 and \$50 million annually (not counting the \$55 million for University Hospital.) The *State* funds for this educational effort are slightly over \$10 million. Thus, if some authority should insist that the faculty "get out there on the road and support those outreach programs," the generation of outside research funds could not continue (the *same*) professor being in Resume Speed, Alabama\*, rather than back where most of the students, patients, teaching, and research are). So, the outside research support must decrease drastically or cease entirely, and the professor is also no longer available at UAB to generate patient care funds to defray costs. Next, in the absence of sufficient funds to cover the costs of even the tenured faculty, we cannot meet the payroll, a "fiscal crisis" occurs, the best among the faculty leave, lawsuits over tenure are filed, and the State is faced with putting in more money than ever before simply to keep the ship afloat. With the huge commitments of capital which have been made for facilities, presumably the state would come up with the funds. But some might wonder whether it was, after all, worth it. The costs would have escalated; the quality would have visibly deteriorated; there would be no one to answer the MIST line (at least, no one anybody wanted to talk with); and there would be chronic accreditation troubles. Besides, people might have decided there were enough doctors around anyhow and that availability of cheap energy is the real problem of the day. What then would happen to the multiple, decentralized outreach programs currently funded at marginal levels? Where would the State obtain the considerable added money to fund all these programs at self-sufficient levels? Unless other sources of funding could be found, a number of them would have to be discontinued.

Alabama ranks 9th of the 50 states in percent increase in appropriations for higher education from 1974-5 to 1975-6 (a year in which medical education was treated more generously than colleges and universities); it ranked 21st in appropriations per capita; but it ranked 7th of 50 in appropriations per \$1,000 of personal income; and Alabama ranks 47th (forty-seventh!!) in per capita income<sup>4,5</sup>. Further, Alabama ranks 51st in the nation (behind the 50 states and the District of Columbia; i.e., at the very bottom) in funding of prisons, and we are currently attempting a massive upgrading under force of a federal court order<sup>6</sup>. Still further, the State's mental hospital facilities are under a similar court order forcing increased spending for upgrading. And still further, the State's Medicaid program was headed towards a massive deficit of

more than \$20 million for the final months of this year until drastic cuts were made recently. All of which is simply to say: Alabama is already doing pretty well by its medical education programs in relation to the total it has to spend. Where is all this additional money coming from?

If we are to proceed with expansion of state-funded medical education and service programs in Alabama both in numbers of students to 300 per class and in numbers of programs dispersed around the state, we need to take the financial and resource realities into consideration. Two of these are (a) the need for differentiation of functions among the various units, so as to promote cooperation between the units rather than wasteful competition; and (b) a great deal more careful statewide planning is necessary, with safeguards to assure that the plans are not subverted by well-meaning but destructively autonomous initiatives.

With regard to differentiation of education programs, a quotation from a recent book on dispersed systems is appropriate: "In a period of inhibited growth, therefore, multicampus systems have the advantage of size and the added benefit of a form of governance with potential for variety and change. Even with fewer students and less support, a multicampus system can maintain its effectiveness by pursuing the objectives of campus diversity, where the system promotes different academic and administrative approaches at different campuses; campus specialization, where different goals are designated for different campuses; and campus cooperation where academic resources are shared by several campuses. These objectives, desirable during a period of growth, may become necessary conditions of survival as enrollment stabilizes for all multicampus systems, including university and senior college systems and the increasing number of community college districts with more than one campus."<sup>7</sup>

With regard to planning, difficult though it may be, not must be taken of what some authorities say about its relation to decentralization. Under a section titled "How Much Decentralization?" Newman, Summer, and Warren start with the statement, "*Experience has shown that PLANNING—that is, identifying problems and deciding what action to take—is usually the most crucial element in thinking about decentralization*,"<sup>8</sup>. Without adequate planning and coordination, decentralization often culminates in chaos, waste, and collapse.

Alabama's medical education system, necessarily linked to medical care, is unlike the *Titanic* in that there is no clear analogy to the closing of the waves over the stern as the ship settles to Davy Jones' locker. Total bankruptcy of the state's medical education programs would signal "sinking of the ship," but that seems unlikely to occur. Similarly, closing of the state's two medical schools would be clearly analogous to the ship's going down. And Alabama's two medical schools, one in Birmingham and one in Mobile, were closed in 1915 and 1920. However, more likely than any such clearcut disaster would be a creeping deterioration, so gradual and ambiguous that people would argue as to whether it existed. "Quality" of education and care is a misty, uncertain thing difficult to define and measure, though most of us are convinced there are such

CONTINUED ON PAGE 52

\*No slur intended here. "Resume Speed" may be a much nicer and healthier place to live than Birmingham or Mobile, but it probably does not have a doctor.



**RECENT CHANGES**

**federal register**

**Providing  
Drug Information  
to Physicians**

**Informational  
Bulletin #433-76**

**National  
Health  
Insurance**

**special report**  
**Malpractice  
insurance:**

**drug  
bulletin**

**Health care doesn't  
need more red tape**

**Drug firms challenge  
'MAC' rules**

**Drug  
Substitution**

**The Common Denominator  
of Health Progress**  
**RESEARCH**

**Mailgram**



# THERE ARE A LOT OF PEOPLE GETTING BETWEEN YOU AND YOUR PATIENT.

Medicine today is in the spotlight, subjected to all kinds of scrutiny. Your control over patient therapy is being monitored, judged and occasionally abrogated, sometimes by unknown third parties.

The worry is that in the wake of this focus, the relationship between you and your patient will be weakened, without offsetting benefits. Consider three examples:

**Drug substitution** In most states, pharmacy laws, regulations or professional custom stipulate that your non-generic prescriptions be filled with the precise products you prescribe. But in the last five years, a dozen or more State laws have been changed, permitting the pharmacist in most cases to select a product of the same generic drug to fill any prescription.

Ironically, this dilution of physician control has taken place against a background of growing evidence that purportedly equivalent drug products may be inequivalent, since neither present drug standards nor their enforcement are optimal. In fact, the FDA itself says it has not enforced the same standards for hundreds of "follow-on" products that it had applied to the original NDA approvals. Thus physician control over patient therapy is being eroded with a risk that patients may be exposed to drugs of uncertain quality.

The major advertised claim for substitution is reduced prescription prices for consumers. Yet no documentation of any significant savings has been produced.

**MAC** Maximum Allowable Cost, MAC for short, is a Federal regulation designed to cut the Government's drug bill by setting price ceilings for drugs dispensed to Medicare and Medicaid patients. Unless the prescriber certifies on the prescription that a particular product is medically necessary, the Government intends to pay only for the cost of the lowest-priced, purportedly-equivalent,

generally-available product. The effect of the program may be that elderly and indigent patients will be restricted to products which someone in Washington believes are priced right. Practicing doctors will have little to say about administration of the program, since Government will have absolute authority to make its choices stick.

**The drug lag** The future of drug and device research depends upon a scientific and regulatory environment that encourages therapeutic innovations. The American pharmaceutical industry annually is spending more than \$1 billion of its own funds and evaluating more than 1,200 investigational compounds in clinical research. Disease targets include cancer, atherosclerosis, viruses and central nervous system disorders, among others. But there is a major barrier to the flow of new drugs to your patients: The cost of the research is more than ten times what it was, per product, in 1962; and whereas governmental clearance of new drug applications took six months then, it commonly consumes two years now.

The FDA needs adequate time, of course, to consider data. But it is equally clear that the present approval process contributes to needless delay of needed therapy. That's why the increased efficiency of the drug approval process is vital to all our futures.

If these issues concern you, we suggest that you make your voice heard—among your colleagues and your representatives in State legislatures and in Washington.

It could make a difference in your practice tomorrow.



Pharmaceutical Manufacturers Association  
1155 Fifteenth Street, N.W., Washington, D.C. 20005

# Around The State

## Roster Supplement

### new members

#### AUTAUGA COUNTY

CIRINCIONE, Robert Joseph, b 45, mc State University, New York 71, recip. NBME 72, 733 Ledyard Place, Montgomery 36109. OrS.

COMBS, Steven Paul, b 44, mc Iowa 70, recip. Iowa 71, 4249 Vaughn Road, Montgomery 36106. OrS.

DEL PORTO, George Bernard, b 42, mc Vanderbilt 71, recip. NBME 72, 21 Armour Dr., Montgomery, 36108. U.

#### CLAHOUN COUNTY

MULLIS, James Wilbur, Jr., b 44, mc Emory 70, recip. Ga. 72, 721 E. 10th Street, Anniston 36201. ObG.

#### COLBERT COUNTY

DINELLA, Ronald Robert, b 27, mc Vanderbilt 60, recip. Tenn. 60, 2400 East Avalon, Muscle Shoals 35660.

#### DALLAS COUNTY

CLOWER, Daniel Clanton, III, b 46, mc Ala. 73, recip. NBME 74, 509 Parkman Ave., Selma 36701. I.

#### ELMORE COUNTY

KIRICENKOV, George Juris, b 43, mc Kentucky 69, recip. NBME 70, Family Practice Center, Friendship Road, Tallassee 36078. FP.

#### FRANKLIN COUNTY

CUNNINGHAM, James Edgar, b 35, mc Tenn. 62, recip. Tenn. 62, Rt. 2, Box 255, Russellville 35653. I.

#### HENRY COUNTY

BASA, Jose Eugay, b 38, mc Cebu-Philippines 65, recip. Ohio 74, Dothan Road, Abbeville 36310. GP.

#### JEFFERSON COUNTY

BONNER, James Ryan, b 44, mc Michigan 71, sob 72, UAB Station, Birmingham 35294.

BRUMMETT, Catherine Bell, b 13, mc Vanderbilt 38, recip. Miss. 60, 3416 Westbury Place, Birmingham 35223. Pd.

CLAYBON, Ernest Albert, Jr., b 43, mc Ala. 75, sb 76, 4500 Horace Dr., Birmingham 35221. GP.

CROCKER, Percy Vandorn, b 46, mc Ala. 73, recip. NBME 74, UAB Station, Birmingham 35294. OALR.

DAILEY, James Owen, Jr., b 50, mc Ala. 75, recip. NBME 76, 619 South 19th Street, Birmingham 35223. Path.

DICKINSON, Douglas Scott, b 45, mc Pa. State 72, recip. NBME 74, 989 Rycroft Road, Alabaster 35007. I.

DOWDEY, Benjamin Charles, b 48, mc Ala. 73, recip. NBME 74, 2559-G Mountain Lodge Circle, Birmingham 35216. I.

ELSAS, Frederick John, b 43, mc Duke 68, recip. NBME 69, 1025 South 18th Street, Suite 301, Birmingham 35205. Opht.

FRASER, Robert Gordon, b 21, mc Manitoba 45, recip. Province of Quebec 51, 619 South 19th Street, Birmingham 35233. R.

GLASER, Wolfram, b 44, mc Ala. 71, recip. NBME 72, Lloyd Noland Hospital, Fairfield 35064. P.

MATUKAS, Victor John, Jr., b 33, mc Colorado 73, UAB Station, Birmingham 35294. S.

ROGERS, Joseph Handley, b 44, mc Ala. 70, recip. NBME 71, 4616 Montevallo Road, Birmingham 35210. Pd.

SMITH, Richard Felix, b 45, mc Ala. 71, recip. NBME 72, 1932 Laurel Road, Birmingham 35216. Pd.

TAN, Leo Tjeng Thay, b 20, mc Indonesia 48, recip. Ill. 71, 1505 10th Avenue, South, Birmingham 35205. ObG.

VINIK, Hymie Ronald, b 32, mc Univ. of Witwatersrand-Johannesburg 61, Limited Lic. 76, UAB Station, Birmingham 35294. Anes.

WISE, James Edwin, b 35, mc Ala. 61, sb 62, Brookwood Professional Building, Suite 106, Birmingham 35209. OrS.

#### LAUDERDALE COUNTY

BLACK, William Donald, b 42, mc Tenn. 67, recip. Tenn. 68, 409 N. Cedar St., Florence 35630. I.

#### LEE COUNTY

VOELKEL, Paul Brown, b 42, mc Maryland 69, recip. Maryland 69, 1700 Arrowhead Ave., Opelika 36801. R.

#### MADISON COUNTY

MCKENZIE, Lusanne Craddock Lilly, b 45, mc Vanderbilt 70, recip. NBME 71, 201 Governors Dr., SE., Huntsville 35801. Pd.

WICKS, John Cox, Jr., b 35, mc Arkansas 63, recip. Arkansas 63, 410 Lowell Dr., Huntsville 35801. P.

#### MOBILE COUNTY

BARNARD, Mark Luther, b 50, mc Ala. 76, Limited Lic. 76, 2451 Fillingim St., Mobile 36617.

BOEHM, Gerhard Arnold Walter, b 45, mc Ala. 71, recip. NBME 72, 120 Louiselle Street, Mobile 36607. S.

FELDMANN, John Emerson, b 42, mc Cornell 68, recip. NBME 69, 1720 Springhill Ave., Mobile 36604. I.

LINDLER, Charlotte Elizabeth, b 51, mc South Carolina 76, Limited Lic. 76, 2451 Fillingim St., Mobile 36617. Pd.

MORRISON, Lemuel, b 39, mc Ala. 65, sb 66, 2451 Fillingim St., Mobile 36617. Pd.

NEWMAN, Donald Drennen, b 47, mc Ala. 73, recip. Ga. 75, 231 Shelton Beach Road, Saraland 36571. GP.

#### MONTGOMERY COUNTY

BRYAN, Stephen Ray, b 44, mc Utah 71, recip. NBME 72, 2119 East South Blvd., Montgomery 36111. N.

DORAND, Rodney Dixon, b 46, mc Jefferson Medical College 72, recip. NBME 73, 2230 Woodley Road, Montgomery 36109. Neonatology.

HODURSKI, Donald F., b 45, mc Indiana 70, recip. Indiana 70, 2007 East South Blvd., Montgomery 36111. Or.

MCCORD, William Mellen, b 07, mc LSU 40, recip. La. 40, 1110 Mulberry St., Montgomery 36106. FP.

#### MORGAN COUNTY

BOWLES, Joe Paul, b 42, mc Ala. 68, recip. NBME 69, 1205 Medical Dr., SE, Decatur 35601. D.

LEWIS, Thomas Knight, Jr., b 22, mc Emory 51, recip. Ga. 51, 414 Walnut St., NE, Decatur 35601. Pd.

#### ST. CLAIR

SPEAKER, Otho Franklin, b 11, mc Loma Linda 39, recip. NBME 40, P. O. Box 534, Pell City 35125. OALR.

### address changes

#### AUTAUGA COUNTY

WILMOTH, Jon D., present Prattville to 6003 Overland Road, Boise, Idaho 83705.



#### **BALDWIN COUNTY**

NICHOLAS, Edward T., present Bay Minette to Medical Arts Center, P. O. Box 237, Foley 36535.

#### **CALHOUN COUNTY**

SPEARMAN, George K., present Anniston to 226 East 10th Street, Anniston 36201.

#### **CHAMBERS COUNTY**

CAMM, G. Elizabeth, present West Point, Georgia to 2365 Tanglewood Drive, Lisle, Illinois 60532.

#### **CHEROKEE COUNTY**

ADAMS, John G., present Centre to Marshall Medical Clinic, 402 South Bolor, Marshall, Texas 75670.

#### **COVINGTON COUNTY**

TERRELL, Dudley J., present Opp to 401 E. Willowood Dr., Ozark 36360.

#### **CULLMAN COUNTY**

WILLIAMS, Roy W., present Cullman to 700 2nd Avenue, S. W., Cullman 35055.

#### **DEKALB COUNTY**

PINEDA, Thomas Q., present Ft. Payne to Rt. 7, Box 666, Ft. Payne 35967.

#### **ELMORE COUNTY**

ROBERTS, Gerald R., present Tallassee to 3402 Tanglewood Drive, Decatur 35601.

#### **ETOWAH COUNTY**

FRANK, Herman W., present Gadsden to 208 Argyle Circle, Gadsden 35901.

ISELL, E. A., present Gadsden to 301 Wildhaven Circle, Gadsden 35901.

#### **HOUSTON COUNTY**

GRANGER, Frank, present Ashford to P. O. Box 432, Ashford 36312.

JOHNSON, George E., present Dothan to Rt. 7, Box 113, Dothan 36301.

LOPEZ, Fernando, present Dothan to P. O. Box 1669, Dothan 36301.

#### **JEFFERSON COUNTY**

ADAMS, George M., present Birmingham to 742 Euclid Avenue, Birmingham 35213.

BAJAJ, Subhash C., present Birmingham to 8010 2nd Avenue, South, Birmingham 35205.

BARCLIFT, W. C., Jr., present Birmingham to 2018 Brookwood Medical Center Dr., Birmingham 35209.

BEARMAN, Alvin J., present Birmingham to 7901 1st Avenue, South, Suite 206, Birmingham 35206.

BENTON, Jay T., present Birmingham to 312 Rosewood Street, Birmingham 35210.

BERRYMAN, Richard L., present Birmingham to 511 Wonder Lane, Birmingham 35210.

BLACK, Joseph W., present Birmingham to Pikeville Methodist Hospital, U. S. 23 Bypass, Pikeville, KY 41501.

BRANNON, Loyd C., present Birmingham to 328 Camleo Lane, Birmingham 35226.

CARPENTER, Burwell S., Jr., present Birmingham to 511 19th Street, Ensley, Birmingham 35218.

CARRAWAY, Charles A., present Birmingham to 2826 Balmoral Road, Birmingham 35223.

CHAMPION, Richard M., present Birmingham to 3700 Brookwood Road, Birmingham 35223.

COSBY, Joseph C., present Huntsville to 401 Bay Street, Gadsden 35901.

DAVIE, J. Clayton, present Birmingham to 1804 12th Avenue, S., Birmingham 35205.

EDGE, William T., present Bessemer to Route 1, Box 3, McCalla 35111.

FISHER, C. J., present Birmingham to 2509 Shades Crest Road, Birmingham 35020.

FLYNN, Thomas J., present Fairfield to P. O. Box 247, Bessemer 35020.

GOLDBLATT, Edward L., present Birmingham to 2045 Brookwood Medical-Dental Bldg., Birmingham 35209.

GOODMAN, Seaburt, present Birmingham to 924 South 19th Street, Birmingham 35205.

HARPER, Ann L., present Birmingham to P. O. Box 2834-A, Birmingham 35212.

HARRIS, William M., Jr., present Birmingham to 1921 Wellington Road, Birmingham 35209.

HARSH, John F., present Birmingham to P. O. Box 9051, Birmingham 35213.

HENRY, N. Winston, present Birmingham to P. O. Box 43149, Birmingham 35243.

HUTCHINS, Kelly E., present Birmingham to 4432 Briarglen Dr., Birmingham 35243.

JACKSON, David H., present Birmingham to 2018 Brookwood Medical Center Dr., Birmingham 35209.

JOHNSON, Charles M., present Birmingham to 1500 6th Avenue, South, Birmingham 3523.

JONES, Dewey H., present Birmingham to 2018 Brookwood Medical Center Drive, Birmingham 35209.

KASHLAN, Mouhamed B., present Birmingham to Rt. 2, Box 374-A, Parrish 35580.

LEE, Daisy S., present Birmingham to 1025 South 18th Street, Suite 303, Birmingham 35205.

LEVINE, Myron A., present Birmingham to 2660 10th Avenue, South, Suite 720, Birmingham 35205.

LEWIS, Jerry K., present Birmingham to 637 Valley Drive, Birmingham 35206.

LEWIS, Irwin, present Birmingham to 2018 Brookwood Medical Center Drive, Birmingham 35209.

LITTLETON, Harry J., present Birmingham to 2018 Brookwood Medical Center Dr., Suite 304, Birmingham 35209.

MAULDIN, Jack L., present Birmingham to 2660 10th Avenue, South, Suite 701, Birmingham 35205.

McCOLLOUGH, E. Gaylon, present Birmingham to 1516 South 20th Street, Birmingham 35205.

MILLS, Patrick L., present Birmingham to 2018 Brookwood Medical Center Dr., Suite 301, Birmingham 35205.

MONTIEL, David, present Birmingham to 2220 Avanti Lane, Birmingham 35226.

MORRISON, S. David, present Birmingham to East Side Mental Health Center, 7612 1st Avenue, North, Birmingham 35206.

NEWELL, Ronald B., present Birmingham to 3452 Overton Road, Birmingham 35223.

NICHOLSON, James L., present Birmingham to 2018 Brookwood Medical Center Dr., Birmingham 35209.

NUCHOLS, Frank J., present Birmingham to 6900 6th Avenue, South, Birmingham 35212.

OBERMAN, Albert, present Birmingham to 1717 11th Avenue, South, MTB, Room 719, Birmingham 35294.

OLIVER, Robert I., present Birmingham to 2018 Brookwood Medical Center Dr., Birmingham 35209.

PITTS, William R., present Birmingham to 1539 South Main Street, Graysville 35073.

ROBINSON, Oliver G., Jr., present Birmingham to 1605 11th Avenue, South, Birmingham 35205.

SAWYER, Nancy J., present Birmingham to 2212 Mountain View Dr., Birmingham 35216.

SHAW, Ronald A., present Birmingham to P. O. Box 20276, Birmingham 35216.

STAATS, Okey J., present Birmingham to 701 Princeton Avenue, Birmingham 35211.

STIGLER, Stephen L., present Birmingham to 3405 Westbury Road, Birmingham 35223.

STRAUGHN, J. Michael, present Birmingham to 2018 Brookwood Medical Center Dr., Suite 304, Birmingham 35209.

STROUD, Robert M., present Birmingham to 3-R-24UAR, UAB Station, Birmingham 35294.

TEAGUE, E. B., present Birmingham to 208 Sheridan Lane, Birmingham 35216.

TUCKER, Mylan S., present Bessemer to 915 Medical Center Dr., Bessemer 35020.

WAINWRIGHT, S. P., present Birmingham to 2625 Highland Ave., Spt. 504, Birmingham 35205.

WALTON, Philip D., present Birmingham to 4623 Battery Lane, Birmingham 35213.

WHITE, Boyce J., II, present Birmingham to 4313 Corinth Dr., Birmingham 35213.

WILLISTON, William C., present Birmingham to 7901 1st Avenue, South, Suite 206, Birmingham 35206.

WOOD, William C., Jr., present Birmingham to 7901 1st Avenue, South, Suite 401, Birmingham 35206.

YELTON, Chestley L., present Birmingham to 2660 10th Avenue, South, Suite 238, Birmingham 35205.

## LAUDERDALE COUNTY

DOSS, Wilford C., Jr., present Florence to 721-D Ridgeway, Fairfield 35064.

JOHNSON, Donald L., present Florence to Route 8, Box 96, Indian Springs, Florence 35630.

NOFZINGER, John D., present Florence to P. O. Box 280, Florence 35630.

ROY, Vance C., present Florence to P. O. Box 280, Florence 35630.

WOMACK, Charles E., present Florence to 2122 Helton Drive, Florence 35630.

## LEE COUNTY

JENKINS, Chester W., present Opelika to 121 North Twentieth Street, Opelika 36801.

## MADISON COUNTY

ENGLISH, William E., present Huntsville to 600 St. Clair, Suite 22, Huntsville 35801.

OWENS, Annelies H. M., present Redstone Arsenal to 8003 Louis Dr., SE, Huntsville 35802.

PARKER, John M., present Huntsville to P. O. Drawer 8, Huntsville 35804.

PLOUSSARD, John H., present Huntsville to 815 Franklin Street, SE, Huntsville 35801.

PRITCHETT, Joseph H., present Huntsville to 309 Lincoln Street, SE, Huntsville 35801.

SPRATLING, Larry, present Huntsville to US Army Hospital, Redstone Arsenal 35808.

STEPHENS, G. Gayle, present Huntsville to Bank of Huntsville Building, Suite 202 — 203, 101 Governors Drive, SE, Huntsville 35801.

WILLICE, Robert L., present Huntsville to 101 Governors Drive, Huntsville 35801.

## MOBILE COUNTY

DUNHAM, William K., Jr., present Mobile to 1505 Carlisle Dr., East, Mobile 36608.

JACKSON, Andrew W. R., present Mobile to 10 Huron Ave., Apt. 1-D, Jersey City, New Jersey 07306.

KINCAID, Charles K., present Mobile to 036 Waunona Way, Madison, Wisconsin 53713.

McCULLOUGH, David L., present Mobile to 4711 Old Shell Road, Mobile 36608.

TERRY, Charles D., present Mobile to 2152 Airport Blvd., Suite 104, Mobile 36606.

MEADOWS, Donald C., present Mobile to 6 Lakeview Ct., RFD 1, Towanda, Kansas 67144.

## MONTGOMERY COUNTY

ADAMS, Robert B., present Montgomery to 2055 Normandie Dr., Montgomery 36111.

BONNER, Mack S., present Montgomery to 3424 Country Church Road, Montgomery 36116.

BRIDGER, William M., present Montgomery to 2055 Normandie Dr., Montgomery 36111.

DAVIS, John W., Jr., present Montgomery to 2033 Normandie Dr., Montgomery 36111.

GARRETT, Richard M., present Montgomery to 2055 Normandie Dr., Montgomery 36111.

HUTCHINSON, H. Hamilton, present Montgomery to 1722 Pine Street, Suite 700, Montgomery 36106.

MCBRYDE, R. R., present Montgomery to 1722 Pine Street, Suite 700, Montgomery 36106.

MERTINS, Paul S., present Montgomery to 1722 Pine Street, Montgomery 36106.

MILES, Franklin C., present Montgomery to 1722 Pine Street, Suite 802, Montgomery 36106.

OLIVER, Frank E., present Montgomery to 5861 Carriage Brook Road, Montgomery 36116.

SULLIVAN, John C., present Montgomery to 2055 Normandie Dr., Montgomery 36111.

TISDALE, W. W., present Montgomery to 1722 Pine Street, Suite 700, Montgomery 36106.

TRAWICK, Zachary T., Jr., present Montgomery to 2025 Normandie Dr., Montgomery 36111.

WALLER, William C., present Montgomery to 2033 Normandie Dr., Montgomery 36111.

## MORGAN COUNTY

PACK, Milton, present Decatur to 6916 Lasker, Galveston, Texas 77551.

TRAMMELL, Dale E., present Decatur to 1201 13th Avenue, SE, Decatur 35601.

## TALLADEGA COUNTY

NICKERSON, Paul, present Sylacauga to 114 South Main Street, Sylacauga 35150.

## TUSCALOOSA COUNTY

HARRIS, Bruce A., Jr., present Tuscaloosa to 1204-A Bailey Cove Circle, Huntsville 35802.

CONTINUED ON PAGE 48



# Mission-Minded Physician To Serve In Thailand

Many Alabama physicians and their families from time to time have the unique opportunity of serving as "medical missionaries" to a foreign country. All too often, these sacrificial "expressions of love" go unreported as a matter of information to the general populace.

The mission always involves a temporary leave of absence from a busy practice and familiar surroundings. Sacrifices on the part of the family members (schools, jobs, etc.) are never easy. Yet, the personal and professional joys derived from the trip are reportedly well worth the sacrifices. The editorial staff of the JOURNAL is always pleased to report on any and all medical missionary journeys undertaken by MASA members. The coming visit to Bangkok, Thailand by Dr. and Mrs. Daniel E. Merck and family is one such journey.

Dr. and Mrs. Daniel E. Merck have been committed to missions for 22 years. But now they're giving a year of their lives to serve as special project medical workers.

The Birmingham surgeon and his wife were employed by the Southern Baptist Foreign Mission Board during its February meeting to spend the next 12 months working at the Bangkok, Thailand, Baptist hospital.

"A friend told me, 'One is either a missionary or a mission field,'" Dr. Merck related. "You don't get on an airplane and fly to Tokyo and become a missionary. You're either one here or you're not. We're both very mission-minded. We consider ourselves missionaries. That decision was made at Southern Seminary 22 years ago."

Since that time, the Mercks have made several short-term mission trips. Dr. Merck explained that at the time he made his first trip he was involved in several commitments which did not leave him free to consider making a career of missions.

"It's taken several years of going back to the field, working with missionaries, doing things and really looking to lead us to this point," said Dr. Merck, who is chief of surgery at Baptist Medical Center, Birmingham. "Also, we have a 12-year-old son and the way he reacts to Thailand is a lot of our consideration concerning a career in missions. Right now we're going for a year. But I've resigned all commitments in Birmingham; so the Lord is free to do with us as He wants."

Twice, Dr. Merck visited the Bangkok hospital to relieve the doctors there for short periods of time.

"I feel definitely that the Lord has led me to this particular hospital," he continued. "I could be happy at another hospital, but I want to go to Thailand. I love the people. They're a warm people. You know you've really done something when you've been there. You get a lot more out of it than they do."

In Thailand, he said, one may see 52 patients in a 25-bed ward. "They're on the floor or any place you can put them," he explained. "Yet they never gripe or complain, they're appreciative."

In addition to his love for the people, Dr. Merck sees the great need for an additional surgeon at the hospital. Currently, there is only one Southern Baptist missionary surgeon, Dr. Alton L. Hood, serving there.

Dr. Merck added, "It didn't take me long to realize that all the money in the world would not make me happy. The Lord has led me to realize that there are plenty of doctors here in the States."

"Anyone can do what I'm doing in Birmingham. But not anyone will go to the mission field. I've spent a lifetime doing my number. Now God is saying to me, 'Okay, let's take what you've got and put it to work.'"

Dr. Merck is a native of Birmingham. Mrs. Merck, the former Barbara Holt, is from Pensacola, Fla. ●

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Vol. 142, No. 8, Feb. 24, 1977.

MORRIS, James E., Jr., present Tuscaloosa to 818 Canyon Road, Tuscaloosa 35401.

NELSON, Robert, Jr., present Tuscaloosa to 535 River Road, Suite L-1, Tuscaloosa 35401.

PIERONI, Robert E., present Tuscaloosa to 15 Riverdale, Tuscaloosa 35401.

SHAMBLIN, William R., present Tuscaloosa to 535 River Road, East, Suite K, Tuscaloosa 35401.

## WALKER COUNTY

MALI, Daryoush J., present Jasper to 1804 Shades Cliff Road, Jasper 35501.

## WASHINGTON COUNTY

WEBB, Virginia E., present Calvert to 8 North LaFayette St., Apt. 8, Mobile 36604.

## transferred

### AUTAUGA COUNTY

DAUGHERTY, Thomas Wilson, 704 Ledyard Place, Montgomery 36109. From Montgomery County Medical Society.

### COVINGTON COUNTY

HANSFORD, William Casson, North Main Street, Opp 36467. From Jefferson County Medical Society.

### LAUDERDALE COUNTY

BENNETT, Ann, 216 Marengo Road, Florence 35630. From Jefferson County Medical Society.

### MOBILE COUNTY

DUNHAM, William King, Jr., 110 Riverbend Dr., No. 103 Riverbend Apts., Mobile 36605. From Conecuh County Medical Society.

### MONTGOMERY COUNTY

SNIDER, Howard Carey, 1263 Gregory Drive, Montgomery 36111. From Jefferson County Medical Society.

## removed

### TALLADEGA COUNTY

HAGLER, John P., Jr., Removed.

### TALLAPOOSA COUNTY

MICHAELS, Lawrence, Removed.

## deceased

### COVINGTON COUNTY

PARKER, Leslie L., Andalusia—11/19/76

### JEFFERSON COUNTY

BATSON, Walter P., Birmingham—11/28/76

## LAUDERDALE COUNTY

WALDEN, Joe Davis, Florence—Deceased.

## reinstated

### CHEROKEE COUNTY

VEAZEY, Philip Ronald, b 42, mc Ga. 69, recip. Ga. 70, 342-A Avery Dr., Ft. McClellan 36201. S.

### MADISON COUNTY

RHYNE, Joseph Adolphus, III, b 35, mc Loma Linda 62, recip. NBME 73, 930 Franklin Street, Suite 101, Huntsville 35801. GP.

## changes

### TUSCALOOSA COUNTY

RAFF, Sandra B. — Specialty — Internal Medicine

RUTNER, Alan C. — Specialty — Internal Medicine

## new phone numbers

ADAMS, C. L., Jr.

Houston . . . . .794-8587

BONNER, J. R.

Jefferson . . . . .934-2186

BOWLES, J. P.

Morgan . . . . .350-2803

BRUMMETT, C. B.

Jefferson . . . . .967-0369

BRYAN, S. R.

Montgomery . . . . .281-7280

CLAYBON, E. A., Jr.

Jefferson . . . . .925-2465

CLOWER, D. C., III

Dallas . . . . .874-9064

CROCKER, P. V.

Jefferson . . . . .934-4502

DAILEY, J. O., Jr.

Jefferson . . . . .934-4713

DICKINSON, D. S.

Jefferson . . . . .663-3943

DOWDEY, B. C.

Jefferson . . . . .979-3325

ELSAS, F. J.

Jefferson . . . . .922-8165

FRASER, R. G.

Jefferson . . . . .934-5131

GLASER, Wolfram

Jefferson . . . . .783-5121

HODURSKI, D. F.

Montgomery . . . . .284-1670

KIRICENKOV, G. J.

Elmore . . . . .283-3111

LEWIS, T. K., Jr.

Morgan . . . . .353-9433

MUTUKAS, V. J.

Jefferson . . . . .934-2672

McCORD, W. M.

Montgomery . . . . .834-2745

McKENZIE, L. C. L.

Madison . . . . .536-5511

MORGAN, Cecil, Jr.

Jefferson . . . . .933-8446

MULLIS, J. W., Jr.

Calhoun . . . . .237-6755

ROGERS, J. H., Jr.

Jefferson . . . . .956-2711

SMITH, R. F.

Jefferson . . . . .823-4766

SNIDER, H. C.

Montgomery . . . . .281-9000

TAN, L. T.

Jefferson . . . . .322-2636

VINIK, H. R.

Jefferson . . . . .934-4696

WISE, J. E.

Jefferson . . . . .870-7025

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## Auxiliary

Mrs. George F. Scofield  
President



The Auxiliary to the American Medical Association has sought to capture the contagious quality of enthusiasm and to spread this idea as they encourage county auxiliaries to share their projects with each other. This is done by means of the Project Bank — a storehouse of information, gathered from county auxiliaries from the fifty states. Counties are asked to report on their successful community projects. These make up the deposits of the Project Bank, kept in the National Headquarters in Chicago, Illinois.

Just as any bank is used for deposits and for withdrawals, so the Project Bank is used by all counties to receive information and inspiration when they need a project to meet the particular needs of their communities. The Project Bank Catalog, describing more than 250 projects, makes a great bed-side reader for any leader needing fresh ideas and stimuli.

Categories of projects and programs found in the Project Bank Catalog are: Aging, Blood Donor, Children and Youth, Family Life, Fund Raising, Health Careers, Health Education, International Health, Mental Health, Safety and Screening. These projects and information are there for the asking. Auxiliaries are encouraged to look at their communities and to determine their unique needs. Many projects are carried out with the help of other groups and agencies and the information is available to them as well. We feel this is truly a public service.

Mrs. Norman H. Gardner, AMA Auxiliary president, and our scheduled guest at the up-coming AMASA Convention in Mobile, April 13-15, gave us this quotation in Dallas in her inaugural address, "Do not follow where the path may lead. Go, instead, where there is no path and leave a trail!" This is the picture of the Project Bank. It is an adventure map, with all the pitfalls of the trail carefully marked, ready for those interested in meeting the needs of others and in making their communities a better place in which to live.

Alabama Auxiliaries have deposited their trail-blazing programs for all to use in the Project Bank. Montgomery-Autauga points the way to a successful Antiques Show and Sale. For the past eight years this has been a valuable public relations project. The event includes a premier night gala, as well as providing a tearoom for those attending the show. Proceeds from this have, in the past, gone to the local library, a local orphanage, a shelter for dependent and

## THE PROJECT BANK

*"None are so old as those  
who have outlived their enthusiasm."*

HENRY DAVID THOREAU

neglected children, and for a free bus for Senior citizens. Acting as their own promoter, the guidelines they give save precious time and mistakes for those planning such an endeavor.

Pike County Auxiliary has reported their Save-A-Life Clinic, featuring a free resuscitation course for the community. Jefferson County gives suggestions about their Health Fair. This is done, cooperatively, with the Health Careers Council of Alabama, many professional societies, schools and non-profit organizations. This reaches thousands of students and shoppers in a local mall on Halloween weekend.

The exciting concept of the Project Bank points the way to one lonely member, wishing to do good for her community. In Alabama, we have 31 organized auxiliaries, covering 33 counties, leaving the needs of 34 counties to other groups of volunteers. It is encouraging that it does not take a crowd to do the many things that bring needed services to those communities. One member-at-large can conduct an educational program for Senior girls on self-breast examination and the need for pap smears. It takes only one interested, warm body who cares about others to teach Senior citizens about their nutrition needs. It takes only one person to have a save-a-life party, to invite friends to her home and encourage them to donate blood. It takes only one to sponsor a child-care course to train baby sitters to tend to children responsibly. It takes only one interested person to plan a Health Careers Day Conference at the local high school to give reliable information to students concerning the available opportunities in the health care fields. One physician's wife can conduct a weekly class of diet and nutrition help for her spouse's diabetes patients.

As we care — and share — our enthusiasm becomes contagious. Let's start an epidemic!

Pat Scofield

Pres.—Mrs. George F. Scofield/Pres.-Elect—Mrs. John S. Taylor/First Vice-Pres.—Mrs. Aubrey Terry/NE Vice-Pres.—Mrs. Eugene H. Bradley/SE Vice-Pres.—Mrs. Rufus Lee/SW Vice Pres.—Mrs. William P. Basoon/NW Vice-Pres.—Mrs. Wilfred Yeargan/AMASA Editor—Mrs. William Smith.

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# Digest of actions—State Committee of Public Health

*The following actions were taken by the State Committee of Public Health at its meeting on March 16, 1977.*

- Received a report regarding the 1077 Assessment of Alabama's Immunization Levels which indicates 65.5% of the two-year-olds with complete immunization for DPT, Polio, Measles, and Rubella.
- Noted that the immunization survey for school entrance indicates that in 1976, 93.78% of children had their Certificate of Immunization for at least three DPT injections, three Polio doses, and one measles and one rubella immunization. In 1975, the figure was approximately 1% less. Chilton County had the highest percentage immunized at 100% and Dallas County had the least immunized at 67%.
- Was advised of the resignation of two physician staff members and of the merging of Preventable Diseases and County Health Services into a single personal services unit effective April 1, 1977.

## Digest of actions of the State Board of Censors

*The State Board of Censors, at its regular meeting on March 16, 1977, took the following actions:*

- Received as information the Auditor's Report for 1976, and noted that the recommendations outlined have been implemented.
- Approved expenses for Lon Conner to attend the AMA-AAMSE New Medical Executives School to be held April 24-26, 1977, in Chicago.
- Appointed Neal S. Flowers, M.D., Monroeville, to serve on the Licensure Advisory Board to replace Harry N. Webster, Jr., M.D.
- Endorsed names submitted by sources other than MASA to the AMA Board of Trustees for service on AMA Committees.
- Approved compliance request with the Fire Marshall's regulation whereby the Assembly Room should be limited to 76 persons and that signs be posted in the entrance way to this effect.
- Deferred action regarding the endorsement of a nurse practitioner for the Town of Waterloo pending a request for additional information.
- Voted to arrange forum on State Health Plan (PL 93-641) with panel of HSA representatives at Annual Session on Thursday, April 14, 1977, during Reference Committee meetings.
- Received as information report of the Communications Department regarding finalized arrangements for Medical Office Assistants' Workshop to be held in Montgomery, Houston County, and Mobile during the month of May.
- Approved restructure of the MASA Pension Committee as follows: Members — Jack Mooresmith, Richard Whitaker, William L. Smith, M.D., Emmett Wyatt and Lon Conner; Administrator — President of the Association.
- Received as information report of the Education Department.

- Approved amendments to the Certificate of Need Bill and approved modification of the Radiological Fee Bill.
- Approved the review cycle for the FY 1977 Alabama Medical Facilities Plan.
- Received a Section 1122 Assurance of Need Status of Nursing Homes Report indicating that 1,311 nursing home beds are under construction with 1122 approval and 18,824 beds in service.
- Received a report on the Governor's request of the Legislature for transfer of \$3 million in funds from the Department of Pensions and Security to Medicaid for State matching which would provide approximately \$11.4 million. Based on this action, the Committee voted to rescind the proposed cuts on provider services approved at the February meetings.
- Approved a Pharmacy Review Advisory Committee and a Pharmacy Peer Review Committee.
- Approved a proposal from EDS Federal for a Medicaid Management Information System (MMIS) under the Retrospective Analysis of Medical Services (RAMS) system.
- Approved a request for EDS to prepare a suggested fee schedule for physicians services on a state-wide basis for study.
- Noted the election of Mr. Frank A. Ahn, Mobile, as representative of the Alabama Hospital Association on the Council on Health Costs, Administration and Organization, succeeding Mr. W. E. Stewart, Birmingham.
- Noted, as required by State Statute, the control of Dextropropoxyphene including its salts (Darvon<sup>®</sup>) in Schedule IV by the Department of Justice, Drug Enforcement Administration, effective March 14, 1977. This notice was published in the Federal Register, Volume 42, No. 29, Friday, February 11, 1977. Under State Statutes, State control, in addition to the Federal control, begins 30 days after Federal control takes place, on April 13, 1977.



## VIDEOCASSETTE TAPES AVAILABLE FOR MASA MEMBERS

George D. Oetting, Ed.D.  
Director

Since last October, the Education Department of MASA has been subscribing to the services of the Network for Continuing Medical Education. Twice each month, we receive a 3/4" videocassette tape dealing with a great variety of medical topics of interest to Alabama physicians.

Each of these tapes lasts about one hour and would make a very useful and interesting program for medical societies, in-service gatherings or just for the information of one doctor.

To view these, you will need access to equipment that can play 3/4" videocassettes with a color TV monitor. A number of hospitals and educational facilities in Alabama have this equipment, but you may have to inquire a bit to find the nearest location. MASA plans to survey this area so we can let everyone know where this equipment is available within the state.

### DEAN'S REPORT

CONTINUED FROM PAGE 41

things as "good doctors" and "bad doctors" and that this has a bearing on the outcome of illness for those physicians' patients. I believe that if the State's efforts in medical education and care become overextended the quality will suffer, but I doubt such deterioration could easily be proved. Another signal of collapse might be the proportion of resources going to overhead rather than direct support of services, as the multiple, independently initiated units do combat for survival, increased status, influence, and—of course—even more resources for their own support and expansion. But, then, overhead is complex, difficult to calculate, and uncertain, so that index is also ambiguous. Simple cost per student would seem a reasonable index. However, most of these programs mix education with service, and often with research, and despite great efforts at cost accounting, there is no "simple cost per student." Thus, the *Titanic* may sink, and we may never know it.

Alabama may not have the best system of medical education and care in the world, but it is probably possible to devise a worse one.

### References

1. Lord, W.: *A Night to Remember*. New York, Holt, Rinehart and Winston Co., 1976.
2. Pittman, J.A., Jr.: Hyperthyroidism, in *Current Therapy*, H. F. Conn, editor, Philadelphia, W. B. Saunders Co., 1973, p. 460.
3. U. S. Department of Commerce: *General Social and Economic Characteristics of Alabama: A U. S. Department of Commerce Publication*. Washington, D. C., Bureau of the Census PC(1)-C2 Ala., 1972.
4. "Alabama Higher Education Financing Compared" in *Advisor: Teachers, Employers, Public, State Police and Judicial, Montgomery, Alabama, Retirement System of Alabama*, December 1976.
5. *Birmingham Post-Herald's World Almanac* 1977, p. 127.
6. Editorial: *Prisons Filling Up*. *The Birmingham News*, February 22, 1977, p. 12.
7. Lee, E. C. and Bowen, F.M.: *Managing Multicampus Systems*, Washington, D. C., Jossey-Bass Publishers, 1975, p. 4.
8. Newman, W. H., Summer, C. E., and Warren, E. K.: *The Process of Management*. Englewood Cliffs, New Jersey, Prentice-Hall, Inc., 1972, p. 48. ●

These programs qualify for one hour of Category I continuing education credit if your institution or group is accredited for continuing education and you conduct a post-videotape seminar. If your program cannot meet this criteria, credit may still be claimed as Category V (a) education.

To give you a sample of programs, the following is a listing of the three most recent programs received:

- |              |  |
|--------------|--|
| NCME No. 265 | Benign Prostatic Hyperplasia: Management Decisions Carcinoma of the Prostate Spinal Fracture |
| NCME No. 266 | The treatment of Anaerobic & Aerobic/Anaerobic Infections                                    |
| NCME No. 267 | Genetics for the Generalist  |

During our Annual Session in April, please stop by the MASA education booth and see some of these programs being presented on our own equipment. We plan to issue a complete list of tapes available in a future issue of the *Journal*.

If you would like to use one of these tapes, just contact the Education Department at 263-6441 to make the arrangements. ●

### CERTIFICATE OF NEED CONTROLS DON'T WORK

A study prepared for HEW by David S. Salkever of Johns Hopkins U. and Thomas W. Bice of Washington U. shows that certificate of need controls don't work as they are supposed to. The study, titled "Impact of State Certificate of Need Laws on Health Care Costs and Utilization," points to "the (perhaps) surprising conclusion that certificate of need controls have contributed to cost inflation..." The authors said, "our findings signal the need for a much more thorough and detailed study of the effectiveness of certificate of need regulation as a cost-control device." ●



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# Bureau of Preventable Diseases

FREDERICK S. WOLF, M.D., DIRECTOR

## Assessment of Alabama's Preschool Immunization Levels—1976

### Survey Results

The 1976 immunization status of Alabama's preschool population was assessed by conducting a random sample survey of two-year-old children. This survey indicated that all preschool levels of protection had increased since the 1975 state survey—DTP, 2.3%; polio, 3.1%; measles, 0.8%; rubella, 1.5%; and mumps, 6.0%. The number of two-year-olds totally protected had also increased 2.5 percent. This survey comprised Alabama's six largest metropolitan areas within the State's designated six Health Service Areas. It was designed such that the sample results would be reflective of the general preschool population with 95 percent confidence.

### Survey Method

Alabama's October 1974 births and Health Service Areas 1-6 were used for the survey participants and areas, respectively. In addition, the State's six major populous areas were individually surveyed—Jefferson, Madison, Mo-

bile, Montgomery, and Tuscaloosa Counties, plus the Alabama Tri-County District, composed of Cullman, Lawrence, Limestone, and Morgan Counties. Each county's portion of the HSA survey was based upon that county's percent of the HSA's preschool population (0-4, 1970 Census). One hundred fifty (150) births were randomly selected in each HSA survey (with the exception of HSA 2, in which only 141 were available) and in each of the six metropolitan areas. Some of the same births were selected in both the HSA and metropolitan surveys. The number of births to be selected from each county was determined by multiplying that county's percent of the HSA's preschool population by 150, the desired number for the HSA survey. In metropolitan surveys, the births were divided by 150 to obtain the sampling interval.

### Survey Evaluation

The year 1976 was a banner year for Alabama in the prevention of immunizable diseases. The most impressive record was our total absence of any reported rubeola. This was a first in the State's medical history, and Alabama was the only state in the nation that reported no measles in 1976. The fewest cases ever recorded of both rubella and pertussis was another state record this year. For the third straight year, no diphtheria and only one case of tetanus was reported. Alabama's decrease in preventable disease morbidity indicates that the preschool immunization levels reflected in this survey are approaching those necessary for the total elimination of preventable childhood diseases. ●

(SEE IMMUNIZATION CHART NEXT PAGE)

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ACCREDITED BY THE J. C. A. H.

Alabama Department of Public Health  
Immunization Program  
Two-Year-Old Immunization Levels - 1976

County	% Immunized for:						(For Comparison)	
	HSA	DTP <sup>1</sup>	Polio <sup>2</sup>	Measles <sup>3</sup>	Rubella <sup>3</sup>	Mumps <sup>3</sup>	1975** % Totally Protected <sup>4</sup>	
Colbert	1	90.1	82.6	80.2	73.6	40.5	62.8	--
Cullman, Lawrence, Limestone, Morgan*		83.3	79.6	74.1	71.3	37.0	61.1	69.6
Franklin								
Jackson								
Lauderdale								
Madison*		88.7	81.1	70.8	67.0	52.8	59.4	68.6
Marion								
Marshall								
Winston								
Bibb	2	74.2	65.8	68.3	64.2	38.3	53.3	--
Fayette								
Greene								
Hale								
Lamar								
Pickens								
Tuscaloosa*		74.4	69.2	72.7	69.2	47.9	55.6	64.7
Blount	3	84.7	75.7	79.3	78.4	38.7	68.5	--
Chilton								
Jefferson*		86.9	76.6	84.1	82.2	46.7	69.2	64.2
St. Clair								
Shelby								
Walker								
Calhoun	4	80.8	73.3	75.0	76.7	36.7	67.5	--
Chambers								
Cherokee								
Clay								
Cleburne								
Coosa								
DeKalb								
Etowah								
Randolph								
Talladega								
Tallapoosa								
Autauga	5	87.1	84.5	79.3	80.2	33.6	74.1	--
Barbour								
Bullock								
Butler								
Coffee								
Covington								
Crenshaw								
Dale								
Elmore								
Geneva								
Henry								
Houston								
Lee								
Lowndes								
Macon								
Montgomery*		86.2	86.2	73.4	73.4	34.9	72.5	69.4
Pike								
Russell								
Baldwin	6	86.2	77.2	71.5	72.4	32.5	59.4	--
Choctaw								
Clarke								
Conecuh								
Dallas								
Escambia								
Marengo								
Mobile*		86.2	81.0	74.1	74.1	42.2	61.2	61.9
Monroe								
Perry								
Sumter								
Washington								
Wilcox								
State - 1976		85.3	78.0	76.5	75.4	36.5	65.5	
(For Comparison) - 1975		83.0	74.9	75.7	73.9	30.5	63.0	

1 - 3 or more injections

2 - 3 or more doses

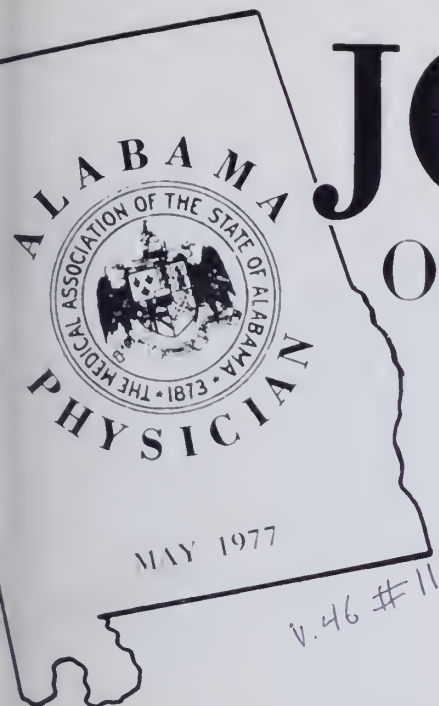
3 - one injection

4 - 3 DTP, 3 Polio, Measles & Rubella  
(Mumps not included)

\*Separate surveys were conducted in these  
metropolitan areas.

\*\*No HSA comparisons were made because 1975 survey  
was conducted by Comprehensive Health Planning  
Districts.





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Another important aspect of the clinical character of Valium is safety. Though drowsiness, ataxia and fatigue are possible, these and more serious side effects are rarely a problem. Of course, as with all CNS-acting drugs, patients taking Valium should be cautioned against driving, operating dangerous machinery or the simultaneous ingestion of alcohol.

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**Contraindicated:** Known hypersensitivity to the drug. Children under 6 months of age. Acute narrow angle glaucoma; may be used in patients with open angle glaucoma who are receiving appropriate therapy.

**Warnings:** Not of value in psychotic patients. Caution against hazardous occupations requiring complete mental alertness. When used adjunctively in convulsive disorders, possibility of increase in frequency and/or severity of grand mal seizures may require increased dosage of standard anticonvulsant medication; abrupt withdrawal may be associated with temporary increase in frequency and/or severity of seizures. Advise against simultaneous ingestion of alcohol and other CNS depressants. Withdrawal symptoms (similar to those with barbiturates and alcohol) have occurred following abrupt discontinuance (convulsions, tremor, abdominal and muscle cramps, vomiting and sweating). Keep addiction-prone individuals under careful surveillance because of their predisposition to habituation and dependence.

**Usage in Pregnancy:** Use of minor tranquilizers during first trimester should almost always be avoided because of increased risk of congenital malformations as suggested in several studies. Consider possibility of pregnancy when instituting therapy; advise patients to discuss therapy if they intend to or do become pregnant.

**Precautions:** If combined with other psychotropics or anticonvulsants, consider carefully pharmacology of agents employed, drugs such as phenothiazines, narcotics, barbiturates, MAO inhibitors and other antidepressants may potentiate its action. Usual precautions indicated in patients severely depressed, or with latent depression, or with suicidal tendencies. Observe usual precautions in impaired renal or hepatic function. Limit dosage to smallest effective amount in elderly and debilitated to preclude ataxia or oversedation.

**Side Effects:** Drowsiness, confusion, diplopia, hypotension, changes in libido, nausea, fatigue, depression, dysarthria, jaundice, skin rash, ataxia, constipation, headache, incontinence, changes in salivation, slurred speech, tremor, vertigo, urinary retention, blurred vision. Paradoxical reactions such as acute hyperexcited states, anxiety, hallucinations, increased muscle spasticity, insomnia, rage, sleep disturbances, stimulation have been reported, should these occur, discontinue drug. Isolated reports of neutropenia, jaundice; periodic blood counts and liver function tests advisable during long-term therapy.



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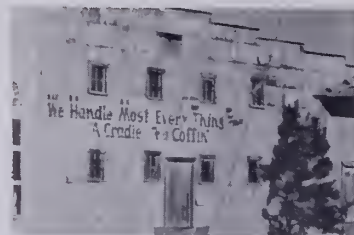
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## STATE HEALTH OFFICER

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# 19 VIEWS



The practice of medicine is becoming more complex and more difficult with the passage of each day. Keeping abreast of the myriad of scientific advancements coupled with the necessary paperwork to satisfy bureaucratic regulations at times leaves a physician feeling that he has little time left to practice medicine. Monitoring the actions of HSA's, satisfying PSRO's, worrying about NHI, watching the State Legislature, and wondering what the next surprise HEW has in store for you is just plain too much for the average practicing physician to have to cope with.

This is where your Association comes into the picture. Current items of importance are highlighted in *The Alabama M.D.*, published weekly to keep the busy doctor informed as to the status of items of interest and concern.

A constant vigilance is maintained by the Association lobbyist and legal staff to guard against the encroachment of the freedoms and rights of the medical profession. Quite often, bills that appear good at first glance will be introduced and passed if it were not for a careful analysis by experts in the field. For example, generic drug substitution sounds like a good deal for everybody concerned—but is it really? The possibility exists for considerably more harm than good to come from the passage of a bill such as this. However, had it not been for the Medical Association, this bill would now be a law. This is one specific example of what is repeated many times during each legislative session.

You might say that you don't have the time to watch for all these bills and we agree, you don't. We can monitor the Legislature for you, but we do need your help and support.

A concerted drive is now underway to enlarge the membership of ALAPAC. If you sincerely want medicine to survive as you know it today, join ALAPAC. Do it today and encourage your friends to get in the battle with you. Through an organized effort, we can succeed. Please, we need your help. Join ALAPAC. ●

## WHAT DO YOU THINK OF THE JOURNAL?

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Montgomery, Alabama 36104

## INFORMATION FOR AUTHORS CONCERNING MANUSCRIPTS


Manuscripts should be typewritten, double spaced on white paper 8½ x 11 inches with adequate margins. The original copy, not the carbon copy, should be submitted. Authority for approval of all contributions rests with the Editor. *The Journal of The Medical Association of The State of Alabama* reserves the right to edit any material submitted. The publishers accept no responsibility for opinions expressed by contributors.

**Style:** The first page should list title, the author (or authors), degrees, and any institutional or other credits. Bibliographies must contain in the order given: Name of author, title of article, name of periodicals with volume, page, month — day of month if weekly — and year. Number should be limited to absolute minimum. References should be numbered consecutively in order in which they appear in the text.

**Length Of Articles:** Articles should not exceed 3,000 words (approximately 3-4 printed pages). Under exceptional circumstances only will articles of more than 4,000 words be published.

**Illustrations:** Illustrations should be numbered consecutively and indicated in the text. The number, indication of the top, and the author's name should be attached to the back of each illustration. Legend should be typed, numbered, and attached to each illustration. Photographs should be clear and distinct; drawings should be made in black ink (preferably India ink) on white paper. For half tones, glossy photographs should be submitted.

**Reprints:** Reprint orders should be returned at once. Prices for reprints, based on numbers of pages, will be furnished upon request. Communications should be addressed to *The Journal of The Medical Association of The State of Alabama*, P. O. Box 1900-C, Montgomery, Alabama 36104. Telephone 263-6441, Area Code 205. ●

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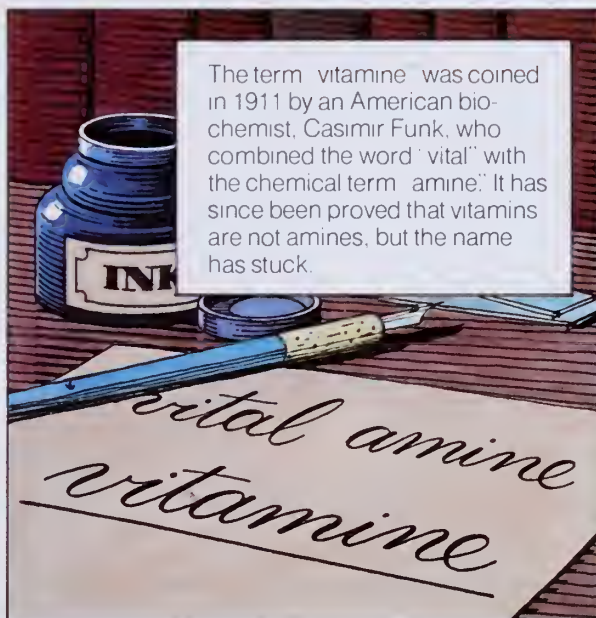
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Hyoscine hydrobromide	0.0065 mg	0.0065 mg

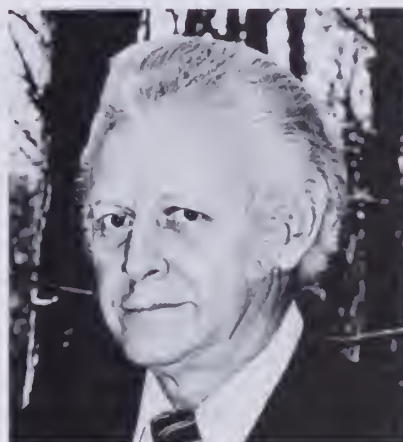
**Indications:** Based on a review of this drug by the NAS/NRC and/or other information, FDA has classified the following indications as possibly effective: adjunctive therapy in the treatment of peptic ulcer; the treatment of the irritable bowel syndrome (irritable colon, spastic colon, mucous colitis) and acute enterocolitis. Final classification of the less than-effective indications requires further investigation.

**Brief summary.** Contraindicated in patients with glaucoma, renal or hepatic disease, obstructive uropathy (for example, bladder neck obstruction due to prostatic hypertrophy) or a hypersensitivity to any of the ingredients. Blurred vision, dry mouth, difficult urination, and flushing or dryness of the skin may occur at higher dosage levels, rarely at the usual dosage.

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## **MESSAGE FROM THE PRESIDENT**



The 116th annual meeting of the Medical Association of The State of Alabama is over. Mobile and Mobile physicians and spouses were gracious and hospitable hosts.

As we traveled the nearly four hundred miles back to Florence through Creola, Mt. Vernon, Sunflower, Linden, Demopolis, Eutaw, Concord, Bear Creek, Spruce Pine and other towns in between, I remembered that the fifty thousand square miles of southern, sunbelt real estate that is Alabama comes close to being identically the same fifty thousand square mile size that is England. Although the size is the same, fifty-five million English jostle together in England, and three and one-half million Alabamians nestle loosely together in Alabama. Isn't it interesting that some believe the solution to health care delivery problems we face are the same or even similar!

Yogi Berra, is quoted as once saying, "you can observe about anything by just watching."

The question this rather elemental approach raises is how often do we observe? An old friend tells me that the appropriations for public health related projects in a major city in our state has increased twenty fold during the past ten years from 250,000 to 5 million dollars. Has there been a comparable increase in the amount of time devoted to public health related projects by Alabama physicians? If not, what is the alternative delivery systems through which such funds are being utilized? Has our obsession with the threat of federal intervention into our turf paralyzed our initiative as a profession? The physicians of the state of Alabama are by law the Health Department of this state, and there is notable evidence that some of us take this responsibility seriously. Dr. Phillip Snodgrass and Dr. Harry S. Pond of Mobile were cited for outstanding service at the Mobile meeting. Every county medical society and every physician has both the opportunity and the example of these public-spirited physicians to follow.

Alabama is not England, although we may be equal in size. We have unique and tough problems that we must answer with responsible and practical solutions. Your comments are welcome.

A handwritten signature in dark ink, reading "John B. Rice". The signature is fluid and cursive, with a long, sweeping underline that extends to the right.

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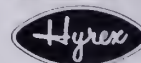
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# Letters to the Editor

## Warning Issued

Dear Dr. Smith:

Many people who are allergic to aspirin also are allergic to Tartrazine—especially those over 40 with the symptom complex of nasal polyps and asthma. Recent evidence suggests that aspirin sensitivity with or without nasal polyps may be present in children and adults with intrinsic asthma. In fact, some severe asthmatics may be sensitive to aspirin without realizing it.

It has been estimated that 25-80% of those individuals allergic to aspirin are also allergic to Tartrazine (yellow dye FD&C No. 5), which is present in some foods, and it is also present in some drugs. Many patients, as well as physicians are not aware of this.

One such example is the pain reliever, Tylenol, which has been used as a substitute for those sensitive to aspirin—as it contains no aspirin, nor any Tartrazine. However, the medication "Co-Tylenol" does contain Tartrazine. I was made well aware of this fact because of a patient of mine who was referred to me for angiodema and urticaria.

History revealed that aspirin had been taken just prior to the onset of the urticaria and the angiodema. Elimination of the aspirin resulted in the elimination of symptoms. He was given a list of drugs containing aspirin to avoid and also a list of drugs and foods containing Tartrazine. He was told he could use "Tylenol."

The patient returned last week with severe angiodema and urticaria. He had not taken any aspirin, but he had taken "Co-Tylenol." On the list of drugs I had given him — this was not mentioned. The company which manufactures "Co-Tylenol" did not give a list of their drugs which contained Tartrazine. A new list has just come out which does list the drugs containing Tartrazine—"Co-Tylenol" is one of these drugs. Tartrazine was not listed on the label of the "Co-Tylenol" as one of the ingredients.

This could cause very severe reactions to someone allergic to Tartrazine—knowing that they could take "Tylenol"—the similarity of names, "Tylenol" and "Co-Tylenol" is very confusing and could be dangerous.

Sincerely,  
Claude A. Frazier, M.D.  
Asheville, N.C.

## Herpes Zoster Treatment

Dear Dr. Smith:

As Chairman of the Committee for Continuing Education of the Alabama Chapter of the American Academy of Pediatrics, I have been asked to coordinate a program for the Medical Association of the State of Alabama meeting in Mobile. Speakers have been selected and have accepted their charge.

I have been questioned regarding the academic validity of this meeting because of an article accepted for publication in the *Journal*. It is felt that Dr. Brown's article (*Journal*, Vol. 46, No. 8, Feb., 1977, p. 31.) in treating herpes zoster with an influenza vaccine has no pathophysiological basis or

rational. Without this or carefully controlled studies and use of blind placebos, it is felt this article has no credibility. We hope this does not reflect the selection of papers for the meeting.

I have been pleased with the general trend of the *Journal* in the recent past.

Sincerely,  
Carden Johnston, M.D.  
Associate Professor  
Department of Pediatrics  
University of Alabama in Birmingham

Dear Dr. Johnston:

*The pharmaceutical explanation of aspirin and morphine is still not understood. Because one does not understand how something works does not refute its existence. One of the primary concerns of physicians is the relief of pain. Would you, in your theoretical purity, return these patients with the excruciating pain of herpes zoster or other patients with pain for other causes who could benefit from analgesics to their preanalgesic states? Why curse the darkness rather than light a candle. Granted, by scientific standards, the issue is still not settled. This report was given in the hope that other physicians might take it upon themselves to use this method to alleviate pain for others and is in no wise an attempt to compete with or disparage the excellent study done at the University on herpes zoster.*

*The history of medicine has countless studies where the explanation came years after widespread use of a drug. The State Medical Journal serves as an outlet for clinical observations from the "town" which may be explained and proved or disproved by the "gown" in the more scientific journals. You need us just as we need you.*

Sincerely yours,  
Andrew M. Brown, M.D.  
Gadsden, Alabama





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Higher starting salaries and annual cost of living increases, in addition to deserved merit raises, make it more important than ever for the physician to have top quality staff personnel. With pay scales increasing each year, the doctor cannot afford to hire mediocre help.

The recruiting process should be designed primarily to result in only **qualified** applicants entering your office for the hiring interview. Interviewing any applicant, regardless of how talented, who does not meet your particular requirements, is a waste of time and money.

It is strongly recommended that you prepare a written job description for the position. When you start looking for a new employee there are several approaches you can take. First, might be word-of-mouth advertising. Ask colleges if they are aware of a qualified person for the job you have in mind.

It is wise to limit this to professional circles. If the information is broadcast to the public you may find friends or neighbors applying for the job or referring applicants who are unfitted. Then when the doctor has to reject them, hard feelings may result.

Your present medical assistant staff may often have information on other medical assistants who are planning to change jobs or who may have been out of the job market for awhile and are now planning to go back to work. Check with your staff, but recognize that if they recommend a person who does not get the position they may be disappointed and could make it uncomfortable for the new person hired. To help avoid this type of situation your staff should know the qualification requirements (OUTLINED IN THE JOB DESCRIPTION) so they will not be tempted to recommend personal friends not able to meet the requirements.

If you are in an area where there is a local chapter of the American Association of Medical Assistants (AAMA) the secretary of the association may know of experienced assistants who are looking for employment. Another source you will want to check is the local, two-year "Junior College." In the past few years many of these colleges have added associate degree courses in medical assistant training. Eventually, these programs may produce a pool of trained (but not experienced) medical assistants to draw from. At the present time your best bet is to call the college to find out if potential applicants are available.

Advertising is still one of the main vehicles used in recruiting. It is easy and relatively inexpensive to place an ad in your local paper.

Constructing an advertisement demands a critical choice of words. What you say is essential in having the ad serve its

intended purpose. If the copy is too general it will bring responses from people who are obviously not qualified for your particular position. The wording of the ad should help screen applicants for you. For example, to advertise for an "assistant" can result in clerical as well as clinical applicants. To advertise for a "secretary" will bring replies from business secretaries as well as medical secretaries. Do you want an experienced person? Or, are you willing to train the new employee? If you are going to dictate your medical record on a machine, shorthand is of little advantage—but a medical vocabulary and the ability to spell medical words is a must. If the major typing job is to head-up medical charts and to fill in insurance claim forms a typing speed of 85 words per minute is not important. The 35 word per minute typist who can do repetitive jobs accurately is adequately qualified.

The length of the ad and whether it should be in a box or otherwise positioned so that it will attract more attention, at no extra cost, depends largely on the job situation in the area at the time you are looking for help. If it is a tight job market, be prepared to spend more, both for longer copy and better display space. The employment situation will vary considerably from time to time. Sometimes four lines in the middle of a long list of want ads will produce sufficient responses, such as:

### HELP WANTED

Medical Office Assistant—Clerical Medical Dictating and Transcribing. Reply by letter only to: Box XYZ, Newspaper, Anytown, USA.

At another time, with a tight employment market, it might be appropriate to purchase additional space and write longer, more selling copy:

Excellent position for person experienced in medical dictation and transcribing. Modern word processing equipment. Requires medical vocabulary. Good working conditions and above average pay scale. Reply by letter summarizing training and experience. Send to Box XYZ, Newspaper, Anytown, USA.

The ad should require a response that will allow you to eliminate those people whose replies are poorly constructed, perhaps indicating lack of pride in their work. When seeking a person to fill a clerical vacancy you may wish to request a letter rather than a resume. In this way you will have a fair idea of the communication skills of the applicant. When advertising for clinical employees, a resume with a short letter is usually sufficient to help screen replies.

Unless you are in need of a new employee immediately it is always best to use a box number for reply. To use your name or telephone number will result in interruption of the work schedule to answer requests for interviews or additional information.

After the ad has secured a number of responses use the telephone to contact the most promising applicants. You



will ask about previous employment, availability, and a few other basics previous to arranging an interview, but the phone call is also important to help you evaluate the applicant's voice and manner. Much of the image of the physician and his practice is created by telephone contact between your staff and the public. The people you hire should reflect this professionalism.

When you have screened the applicants down to the top three, the next step is the employment interview. You have completed the recruitment procedure and are now moving into the hiring process—which is a story all of its own. ●

#### RATES FOR CLASSIFIED ADS

Classified advertising sells for \$7.50 for 30 words or less plus 20 cents for each additional word, payable in advance. Classified displays sell for \$10.00 per column inch. Ad box numbers can be substituted for formal addresses upon request at a cost of \$2.00. Copy deadline is the 1st of the month preceding issue of publication. Send copy to: Assistant Managing Editor, JOURNAL, P.O. Box 1900-C, Montgomery, Alabama 36104. (DISPLAY SAMPLE)

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Fully accredited by Joint Commission on Accreditation of Hospitals. Medicare approved. A participating Blue Cross Hospital.

*"In a real dark night of the soul  
it is always three o'clock in the morning."*

F. SCOTT FITZGERALD  
*THE CRACK UP*, 1936





# Insomnia

## a shade of blue that often accompanies depression

And, in anxiety/depression, Adapin® (doxepin HCl) often helps restore disturbed sleep patterns, such as early morning awakening, with a single daily dose at bedtime.<sup>1</sup> Adapin quickly relieves the patient's anxiety, gradually brightens his mood and outlook, with optimal antidepressant response usually evident within two to three weeks.

1 Goldberg HL, Finnerty RJ, Cole JO: Doxepin: Is a single daily dose enough? *Am J Psychiatry* 131: 1027-1029, 1974

### Brief Summary of Prescribing Information

#### ADAPIN® (doxepin HCl) Capsules

**Indications**—Relief of symptoms of anxiety and depression.

**Contraindications**—Glaucoma, tendency toward urinary retention, or hypersensitivity to doxepin.

**Warnings**—Adapin has not been evaluated for safety in pregnancy. No evidence of harm to the animal fetus has been shown in reproductive studies. There are no data concerning secretion in human milk, or on effect in nursing infants.

Usage in children under 12 years of age is not recommended. MAO inhibitors should be discontinued at least two weeks prior to the cautious initiation of therapy with this drug, as serious side-effects and death have been reported with the concomitant use of certain drugs and MAO inhibitors.

In patients who may use alcohol excessively potentiation may increase the danger inherent in any suicide attempt or overdosage.

**Precautions**—Drowsiness may occur and patients should be cautioned against driving a motor vehicle or operating hazardous machinery. Since suicide is an inherent risk in depressed patients they should be closely supervised while receiving treatment. Although Adapin has shown effective tranquilizing activity, the possibility of activating or unmasking latent psychotic symptoms should be kept in mind.

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Adverse effects occurring infrequently include extrapyramidal symptoms, gastrointestinal reactions, secretory effects such as sweating, tachycardia and hypotension. Weakness, dizziness, fatigue, weight gain, edema, paresthesias, flushing, chills, tinnitus, photophobia, decreased libido, rash and pruritus may also occur.

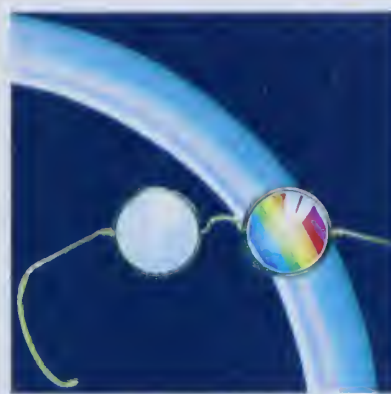
**Dosage and Administration**—In mild to moderate anxiety and/or depression: 10 mg to 25 mg t.i.d. Increase or decrease the dosage according to individual response.

**Usual optimum daily dosage is 75 mg to 150 mg** per day, not to exceed 300 mg per day.

Antianxiety effect usually precedes the antidepressant effect by two or three weeks.

**How Supplied**—Each capsule contains doxepin, as the hydrochloride: 10 mg, 25 mg and 50 mg capsules in bottles of 100 and 1000.

For complete prescribing information please see package insert or PDR.

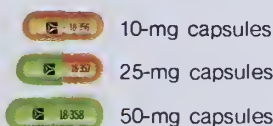


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# Alabama physicians' perceptions about their needs for continuing education

In the spring of 1976, the liaison committee for the Division of Continuing Medical Education in the University of Alabama School of Medicine met to discuss the future of its programs. The committee is made up of physicians representing the departments and divisions of the School of Medicine. The committee suggested the Division of Continuing Medical Education survey physicians licensed to practice in Alabama with regards to their perceived needs.

Under the direction of Ben Wells, M.D., Ph.D., Associate Dean and Director of the division, and Bud Matkin, D.M.D., Assistant Dean, a survey was developed.

It is recognized that there are several ways to measure continuing education needs. The medical school faculties are closest to research developments and have certain perceptions of the needs. The University of Alabama faculty is fortunate to have MIST line data available to them to assist in determining a perception of needs regarding clinical applicability. It is thought by many that mortality-morbidity data is helpful in assessing needs. Practicing physicians are the closest to patient care and their input is of most importance. Perhaps the most significant way to assess CME needs would be through self assessment testing or medical audit techniques.

Physicians' expressions of perceived needs is also important. This method of assessing needs is thought to be the most accessible to begin a series of specific analysis of needs. It is also thought that a rather general inquiry is basic to starting a series of analyses.

The literature contains many samples of surveys of what physicians do and do not like about CME, the testing of achievements (1), and descriptive or administrative statistics (2-5). Youmans studied physicians' behavior changes produced by continuing education in 1935 (6). Several investigators have tried to describe the perceived needs and interests of physicians in CME (7-8). Their results confirmed our thinking that a general assessment survey of perceived needs is an appropriate starting point.

After evaluating a number of CME survey forms, it was decided that the Division of Continuing Medical Education would use a modified form of the instrument utilized by the office of Continuing Medical Education, Tulane Medical School. The University of Alabama School of Medicine Continuing Medical Education needs assessment questionnaire was completed in June, 1976.

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**Bob Willis, Ed.D., Assistant Director  
Division of Continuing Medical Education  
University of Alabama School of Medicine**

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In July, 1976, 4600 questionnaires were mailed to physicians licensed to practice in the state of Alabama. Fifteen percent (694) of those physicians responded to the questionnaire.

Twenty-two specialties were represented with 193 subspecialties. There was widespread representation among the various practice arrangements; thirty-eight percent are solo practitioners, thirty-two percent were in small group practice, ten percent were in large groups and twenty percent were in institutional practice only. The dominant professional activity was in patient care, both in the office care and the hospital setting. Thirteen percent were involved in research, education, or administration with only twenty-six individuals (3%) spending more than half of their time in roles other than patient care. There was a significant dispersion among age groups responding as evidenced by the relative percentages seen between the last five decades experience of this population's years in medical school, internship and residency ranging from 1927 to 1976.

With regards to the type of educational activities preferred, one and two day seminars were the most popular. There was considerable interest expressed in favor of week-end seminars, both locally and in resort areas. There was some interest in self-instructional programs, while slight interest was shown for half day lectures and intermittent offerings (e.g., one day per week for ten weeks).

As for educational methods, seminars and lectures were overwhelmingly preferred with a strong showing for clinical conferences and panel discussions. All the other methods showed average interest exhibited with some exceptions. For example, very few responders indicated interest in library work, lab work, and the use of telephone or radio as a preferred educational method. Of 658 responses to the item surveying the interest in postgraduate traineeships, i.e., mini-residencies ranging from one to eight weeks and not leading to specialty certification, 350 (53%) expressed an interest in such a training program.

When asked about the preferred geographical location for continuing education activities to take place, thirty percent selected Birmingham. Twenty two percent chose the state of Alabama as the limit while twelve percent preferred "the south". With twenty-three percent having no preference, ten percent preferred to get away from their practice to combine the business of continuing medical education with the pleasure of rest, relaxation and recreation. Only three percent indicated an interest in activity at their home locality.

As a group, the responders showed preference for continuing education activities to take place in all twelve months. There was declining interest in the summer months and during the holiday season of November and December. A substantial number had no preference with regards to the time of year continuing education takes place.

Preference for specific days of the week for continuing education was substantially more. Again, each day had some preference shown. But, most responders were partial to Friday and Saturday with Sunday close behind.



When attempting to rank continuing education interests from among the list of seventy-six topics, it was necessary to delete each number one rating since the responder of a given specialty almost unanimously rates his specialty topic number one. If the specialties were counted, it would skew the ranking in favor of one or more of the specialty groups having the most respondents.

As it might be expected, the highest ranking topics were topics of acute or life threatening consequences, of high-incidence diseases, or of the larger general topics. Interest waned as the topics were of more chronic and less threatening consequences, of more exotic disease or substance, or of less application to direct patient medical care. All topics received at least a minimal consideration in the ranking.

In asking the responders to indicate what they perceived to be their greatest specific interest in continuing education, 149 list topics that were stated in the ranking inquiry. Four hundred twenty-seven responders wrote in eighty-nine other specific topics perceived to be of most interest. The most significant responses included 208 responders (50%) who were interested in keeping abreast of the latest innovations in medical care procedures. The other topics were primarily related to clinical problems and generally clustered around one or two specialty groups.

In answering the questions about the most meaningful continuing education program of recent involvement, there were 436 responses. One hundred forty-three (33%) referred to specialty group, voluntary agencies or national association offerings. One hundred twenty-two (28%) referred to activities of hospitals and medical schools out of Alabama. Ninety-six (22%) indicated the most meaningful programs to them are those associated with the University of Alabama School of Medicine in Birmingham. Three of those wrote the MIST line to be the most meaningful. Twenty-eight (6%) responders referred to a variety of self instructional methods and materials as being most meaningful. Seventeen (4%) vouched for the programs of the state chapters of specialty groups and volunteer agencies. The remaining seven percent indicated the most meaningful are the various activities in Alabama associated with local hospitals, the Tuscaloosa and Huntsville campuses of the University of Alabama System Medical Education Program, the College of Medicine in the University of South Alabama, the Medical Association of the State of Alabama, and the Southern Medical Association.

Under "any other comments, suggestions", respondents expressed gratitude and encouragement and offered to help in the improvement of continuing medical education. They suggested specific logistics for programs and needs for improving the quality of the offerings, both in subject matter, emphasis and the instructor's preparations. Specifically, they wanted practical applications. Frequently, responders felt regionalization of continuing medical education to be the only help for many physicians in the state of Alabama.

In summary, among the responders there was considerable diversity among medical specialties, the various practice arrangements and the length of time in service. The factor they had most in common was their predominant professional activity of taking care of patients.

While a one or two day seminar was the most preferred type of educational activity, it should be noted that there was significant interest in all the types of activity.

The activities that involve "teacher-student-in person" relationships were the most preferred with substantial interest in all methods except: library work, lab work, and the use of telephone and radio. More than half were interested in a mini-residency.

For geographical location of activities, almost one-third preferred Birmingham. Almost one-fourth had no preference. Slightly more than one-fifth preferred Alabama. The rest broadened their horizons across the south or looked to a way to combine business with pleasure away from home. Three percent were interested in local activity.

There was not a significant preference regarding the months during the year that activity should take place. Friday, Saturday and Sunday were the most preferred days of the week for activity to occur.

Obviously, each specialty group ranked the topic of their respective specialties with the most interest. Beyond that ranking, the interests appeared to align the topics according to the larger general topics or the more urgent and difficult problems of patient care above the topics less problematic and with less application to patient care. When asked about specific interests, the overwhelming concern was managing time schedules to keep abreast of the latest innovations.

Indications were that sixty-one percent of the most meaningful continuing education programs among these responders took place outside the state of Alabama during the year previous to the survey. It is encouraging to note the many expressions of gratitude, the offers to help, and the suggestions for improvement.

Conclusions regarding the survey encompass a note of encouragement for Continuing Medical Education in Alabama. The percentage of physicians who responded to the survey is indicative of a high level of interest as is their expressions of willingness to help. The diversity of the group reporting indicates that a broad base of the physician population responded to this general survey. This allows a valid group of bases to which the more specific surveys can be addressed, i.e., surgical issues can be specifically addressed to surgeons or others with a strong interest in surgery.

The variety of preferences in the topics, types and methods of CME activity and the preferred times and places should be helpful to the planning and implementations of continuing medical education in Alabama. The majority preferences are a signal for the Division of Continuing Medical Education at the University of Alabama School of Medicine to continue most of its directions. At the same time, the minority interests are being considered and will not be ignored.

It is recognized that the task of continuing medical education in Alabama is too large for any one agency to handle. It is hoped that this survey and its following specific developments can be helpful to all agencies committed to supporting the improvement of patient care delivery by planning and implementing continuing medical education in Alabama.

References available upon request. ●

# ANNUAL SESSION

## orientation

Right—Preparing for Orientation are John B. M. Rice, Jr., M.D., Pres.-Elect, and William T. Wright, M.D., Pres. Center Right—"Medicine Under Fire" panelists include (l-r) Ira Myers, M.D., State Health Officer; Dr. David Mathews, Pres., The University of Alabama; and Dr. Rice.



## auxiliary



Center Left—Auxiliary luncheon guest Charles Brooks, *The Birmingham News*, visits with Aux. Pres. Pat Scofield. Bottom Left—AMA-ERF checks are presented by Camille Johnson to Robert Kreisberg, M.D., Dean, USA College of Medicine and to James Pittman, M.D., Dean, UAB Medical Center (below).







## reference committees

REFERENCE COMMITTEE A—Drs. B. D. McAnnally, R. H. Story, A. Lamar Miller, Mary Tiller and Wm. P. Baston. REFERENCE COMMITTEE B—Drs. R. H. Esham, R. O. Rutland, E. David Haigler, Stanley Hand and C. N. Canup. REFERENCE COMMITTEE C—Drs. A. A. Chandler, W. W. Yeagan, R. Winston Williams, Andy E. Kirk and John M. Akin, Jr. REFERENCE COMMITTEE D—Drs. W. E. Parker, E. C. Brock, Ellis F. Porch and C. L. Golden.

## president's prayer breakfast

President's Prayer Breakfast speaker Dr. Max Rafferty (r) exchanges pleasantries with Breakfast hosts Dr. Myers and Dr. Baston.

# ANNUAL SESSION

## jerome cochran lecture

1977 Jerome Cochran Lecturer  
Howard L. Holley, M.D.,  
awaits his turn at the podium.



## alapac luncheon

Left—John H. Nelson, M.D., chats with ALA-PAC speaker Roy Pfautch prior to special presentation made by W. Vaun Adams, M.D., to Felix Tankersley, M.D., for his service as ALAPAC chairman (below).





## awards dinner



Top Right—Fifty Year Club members applaud award recipient Phillip Snodgrass, M.D. (Word Award presented by C. E. Herlihy, M.D., top left photo). Harry Pond, M.D., center left photo, recipient of special honorary award for production of film "Story of Jay," is congratulated by Jay Barnett, whose story of quadraplegia is described in the film.



## annual business meeting

Left—Counsellor A. A. Wood, M.D., peruses notes prior to start of 1977 Business Session. Dr. Wright gives "oath of office" to newly-elected officers (above photo).

## changing of the guard

# ANNUAL SESSION

pictorial





review



next year...huntsville



# Editorial Comments

Journal of the Medical Association of the State of Alabama/19 So. Jackson St./Montgomery, Ala. 36104

## HIGH BLOOD PRESSURE...tick...tick...tick

A time bomb is ticking off precious seconds, threatening the lives of 23 million Americans. How concerned are we?

High blood pressure is like a time bomb—silent until it explodes into a crippling or fatal stroke, heart disease or kidney failure. High blood pressure ticks away toward this explosion every time the heart beats.

The number of deaths directly or indirectly linked to high blood pressure exceeds the combined total of all deaths due to accidents in the entire United States, including highway deaths. One out of every seven adults (one out of every four blacks) has hypertension. Because the disease often has no discernible warning symptoms, hypertension victims may feel fine and not even know they are stricken. In fact, less than half the victims know they have hypertension. Probably less than one-eighth are receiving adequate treatment because hypertension involves no pain or other danger signs until the patient is suffering long-term consequences. Even after diagnosis by a physician, patients may not be sufficiently educated about the nature and treatment of hypertension. They may not understand that treatment must continue for their entire lives.

It has been discovered that high blood pressure presents special problems to women. In 1967, Dr. John Henry Laragh, noted hypertension researcher, reported a link between contraceptives and high blood pressure. Now it is known that estrogen causes an increase in blood pressure in perhaps one out of five women. Statistics also show that women who have never had high blood pressure may develop it rapidly during pregnancy. Sometimes it disappears after delivery but sometimes it does not.

High blood pressure illustrates the importance and challenge of preventive health education.

The National High Blood Pressure Education Program is the focal point of a nationwide cooperative effort among 150 organizations—state health departments, various federal agencies, professional societies, civic and service organizations, voluntary health organizations, insurance companies, corporations and many involved individuals. Their goal is to increase the effectiveness and activity of all who are involved in hypertension control, thereby leading to a gradual reduction in the prevalence of hypertension.

The 1977 program also plans to focus attention and emphasis on the necessity for hypertensive maintenance—by encouraging hypertensive patients to maintain their treatment through constant medication, diet and exercise as prescribed by the physician.

May, 1977 is again National High Blood Pressure Month. We urge your support and participation in this

nationwide effort to curb the rising rate of hypertension in this country. ●

## THE STORY OF JAY

In the film which documents his nightmare of paralysis from a swimming accident, Jay Barnett says of his moments in the emergency room: "I didn't know then what they knew. That it was all over for me."

"The Story of Jay" is a film produced by the Medical Society of Mobile County to dramatize the tragedy and ordeal of quadriplegia, permanent paralysis from the neck down. The film tells its target audience—young people—of the hazards of shallow water diving. But there is also a message for adults.

Through the film the Medical Society hopes to help prevent quadriplegic cases in the Mobile area. There are, the Society says, each year between 10 and 15 cases of people who break their necks by diving in shallow water. It happens in bays, rivers, swimming holes, backyard pools. It usually happens to teenage boys just reaching the prime of their lives.


"The Story of Jay" is the accounting of a diving accident, its consequences, to Jay Barnett, a Mobile youth. The film's setting includes Mobile Bay, a hospital emergency room, and the Rotary Rehabilitation Division of Mobile Infirmary. "Jay Barnett shared his experience in the hope that others can be spared his ordeal," says Dr. Harry Pond, a Mobile urologist who served as producer of the film. It was written and directed by Tom and Kristin Loehr of the Communications Art Department of Springhill College.

"The ultimate tragedy" is how Dr. Pond describes quadriplegia. "The devastation is that the victim becomes absolutely dependent. He can neither use his arms nor legs and will require a great deal of medical care as well as total nursing care." If the victim happens to be a teenager, usually his parents assume a life-long obligation for someone who needs total care. Thus, three lives are profoundly altered.

Young people should find a meaning in the film. A girl Jay knew says "everything had to change for Jay—everything. He's doing real well...but it's hard." Jay placed a high value on physical activities. He could clean and jerk 200 pounds. In rehabilitation sessions he is now proud that each arm can lift 15 pounds. Worst in his life now, he says, is fighting depression. He speaks of himself and similar young victims. They are, he says, "a small club held together by misery." ●

(Bookings for "The Story of Jay" may be obtained through MASA's Communications Department, P. O. Box 1900-C, Montgomery 36104, or the Medical Society of Mobile County, P. O. Box 1782, Mobile 36601.)





## Natural balance doesn't always come naturally

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■ **Dosage for Vertigo\***—The usual adult dosage for Antivert/25 is one tablet t.i.d.

### BRIEF SUMMARY OF PRESCRIBING INFORMATION

\*INDICATIONS. Based on a review of this drug by the National Academy of Sciences—National Research Council and/or other information, FDA has classified the indications as follows:

**Effective:** Management of nausea and vomiting and dizziness associated with motion sickness.

**Possibly Effective:** Management of vertigo associated with diseases affecting the vestibular system.

Final classification of the less than effective indications requires further investigation.

**CONTRAINDICATIONS.** Administration of Antivert (meclizine HCl) during pregnancy or to women who may become pregnant is contraindicated in view of the teratogenic effect of the drug in rats.

The administration of meclizine to pregnant rats during the 12-15 day of gestation has produced cleft palate in the offspring. Limited studies using doses of over 100 mg./kg./day in rabbits and 10 mg./kg./day in pigs and monkeys did not show cleft palate. Congeners of meclizine have caused cleft palate in species other than the rat.

Meclizine HCl is contraindicated in individuals who have shown a previous hypersensitivity to it.

**WARNINGS.** Since drowsiness may, on occasion, occur with use of this drug, patients should be warned of this possibility and cautioned against driving a car or operating dangerous machinery.


**Usage in Children:** Clinical studies establishing safety and effectiveness in children have not been done; therefore, usage is not recommended in the pediatric age group.

**Usage in Pregnancy:** See "Contraindications."

**ADVERSE REACTIONS.** Drowsiness, dry mouth and, on rare occasions, blurred vision have been reported.

More detailed professional information available on request.

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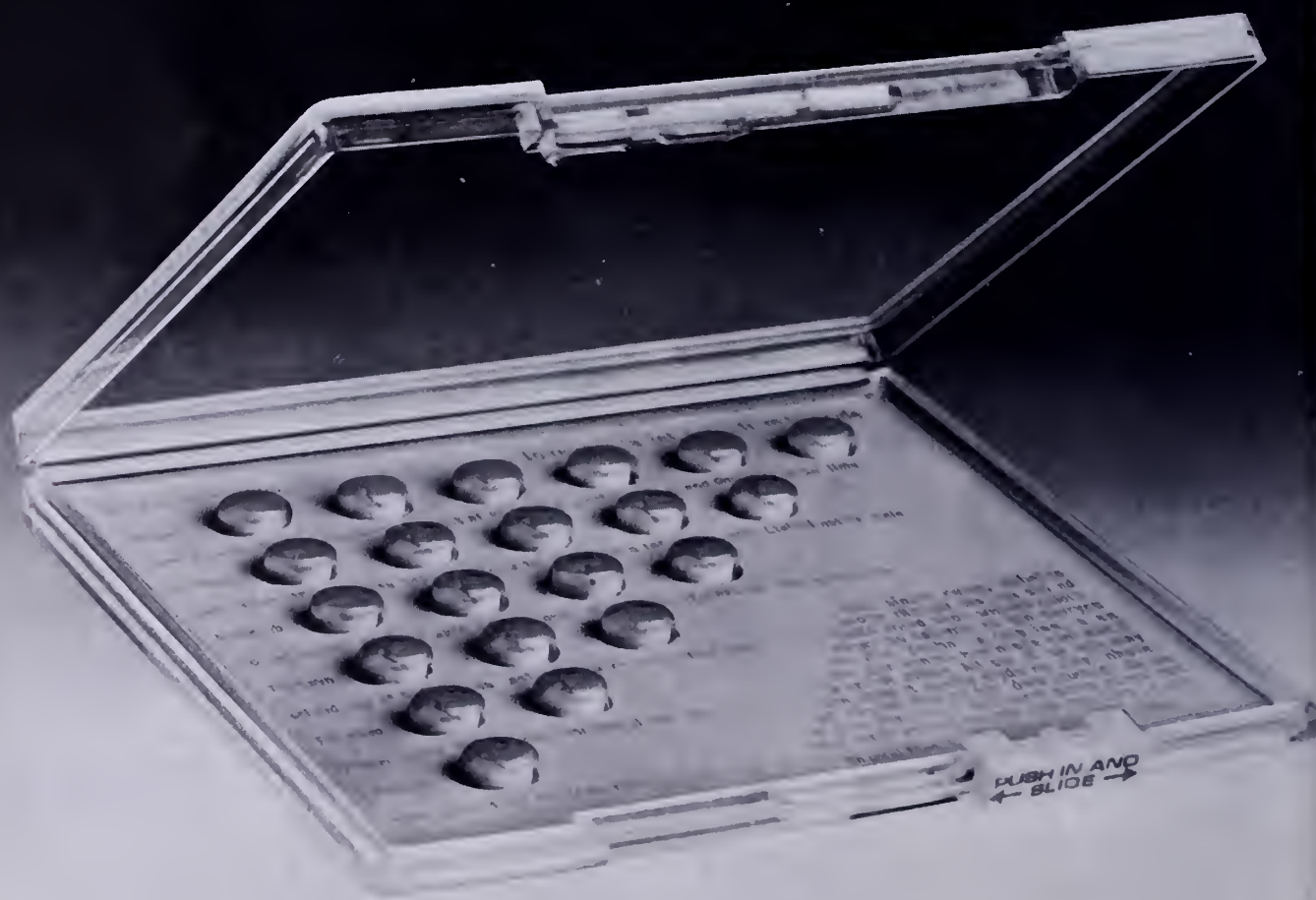
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SINCE January 1974, the Social Security Administration has had responsibility for the administration of two separate disability programs, the social security disability program with which many family physicians are already familiar, and the newer disability program established under the supplemental security income program. This article deals primarily with the first program, but will briefly discuss the second.

### The Physician's Role in the Disability Program

In the past 10 years, the number of men and women applying for disability benefits under social security has increased sharply. Today, nearly 4,000,000 persons are receiving monthly disability payments. This increase in the number of applicants and beneficiaries can be traced generally to legislative changes which have introduced progressively broader coverage for disabled workers and their families. The physician, who assures the soundness of the program's medical aspects and helps patients receive the benefits to which they are entitled, is essential to the disability program. Because of the widened scope of the program, the physician's participation is more important than ever.

### What is Disability?

The social security law describes disability as "inability to engage in any substantial gainful activity by reason of a medically determinable physical or mental impairment which can be expected to last, or has lasted, for a period of not less than 12 months." The words "medically determinable" assume special significance. Under the program, the impairment must be expressed in anatomic, physiologic, or psychological abnormalities that are medically demonstrable. Symptoms, alone, are not enough to satisfy the requirements of disability. Significantly, the disability does not have to be permanent. The requirement of duration of disability is satisfied if a person is expected to be unable to work for 12 months. Youth is not a barrier to receipt of disability payments if the person has worked long enough in "covered employment."

### Who Can Get Disability Benefits?

A person can be eligible for disability coverage under social security in three ways:

1) As a worker. Coverage is based on an individual's work in employment or self-employment covered by social security. The duration of work required for eligibility depends on the worker's age at the beginning of disability. Generally, someone who becomes disabled at age 31 or older must have credit for at least five years of work in the 10-year period ending with the onset of disability. Some older workers, however, may need additional credits depending on their age at the time they become disabled. For the worker who becomes disabled *before* age 31, the duration of work can be as little as 1½ years during the three years prior to the onset of disability.

2) *Continuously disabled since childhood (before age 22).* A person in this category may receive disability payments if a parent (or, in some cases, a grandparent) covered under social security retires, becomes disabled, or

# THE PHYSICIAN'S ROLE IN DISABILITY DETERMINATION

By WILLIAM J. RIVERS

Director, Bureau of Disability Insurance  
Of the Social Security Administration

dies. And the parent of a disabled son or daughter may also qualify for monthly benefits regardless of age if the disabled child is dependent on that parent for personal care.

3) *Disabled widow (or widower) 50 or over.* Benefits may be paid to such a person if the deceased spouse was covered under social security. This applies, also, to certain disabled surviving divorced wives.

### Objective Reporting is the Key

When a patient applies for social security disability benefits, he is asked to list the medical sources that could provide support for his claim. Ideally, the evidence will consist of data from the records of the treating physician, clinic, or other medical source. The experience with the disability program nationwide indicates that in most cases the treating physician has enough objective information on record as a by-product of his treatment of the patient. *The treating physician is neither asked, nor expected, to make a disability determination.*

### Disclosure of Evidence to Claimant

Under the Privacy Act of 1974, a disability applicant has the right of access to all the evidence in his claims folder, including the medical evidence used to evaluate his claim. The record can be given to him directly unless it is determined that direct access to the medical information might have an adverse effect on the claimant. In such cases, access is granted through a representative who is designated, in writing, when the claimant first requests the medical report.

### Where the Decision is Made

In each state, the responsibility for making the determination of disability rests with the Disability Determination Services (DDS) of that state, which evaluates social security disability claims for their residents. The DDS  
CONTINUED ON PAGE 26

*It is the responsibility of the Division of Disability Determination in the State Department of Education of Alabama to adjudicate the Social Security Disability claims as contracted with the Social Security Administration. The role of the physician is very important since it is through information provided by him that a person becomes eligible for disability benefits.*

# DISABILITY DETERMINATION

requests information from the medical sources given by the claimant.

These sources usually have enough clinical facts and laboratory findings on record to enable the DDS to determine the severity of the patient's condition and how it limits ability to work. The professional staff of the DDS includes both physicians and trained disability examiners, who form a balanced team of medical and lay evaluation specialists who can consider all the medical and legal facts on file. They evaluate data that range from medical reports to a complete assessment of vocational considerations as part of their preparation for making the disability determination.

Whenever possible, the DDS tries to limit its requests for medical information to data that relate directly to the impairment and the associated conditions which the claimant states are the cause of his disability. A goal of such individually-tailored requests is to ease the burden of medical reporting without jeopardizing the claimant's right to have his case decided on the basis of all available information.

## Documentation to Support the Claim

The decision on a patient's claim can generally be made if all relevant information about his medical condition is reported. The evaluating physician in the state DDS who has requested the medical evidence does not see the patient. He depends on medical information supplied by the examining physician to assess the severity of the impairment and its expected duration. The disability decision, therefore, rests largely on the completeness of the medical evidence. A detailed report from the treating source, including objective findings based on physical examinations and laboratory procedures, is the key.

It is often difficult to establish the date when the severity of the impairment was great enough to cause disability, an important consideration in determining the amount of benefit to be awarded and the date of entitlement. Therefore, it is extremely helpful if the reporting physician includes the date of each important fact or finding. To save time, photocopies of pertinent sections of the patient's chart or of hospital or consultant's reports may be provided. Despite the thoroughness of the initial report, the DDS reviewing physician may on occasion have a question which requires clarification. In such cases, he may decide to contact the patient's physician directly. If it is agreeable to the physician who has made the original report, this may be done by telephone and thereby obviate some paperwork for the physician and save mailing time.

## Consultative Examinations

If specialized testing and laboratory data are indicated, a consultative examination may be commissioned. Wherever possible, the DDS will arrange to obtain this consultation from the individual's treating physician at the expense of the DDS. If this is not possible, however, an independent consultation will be obtained.

These consultative examination reports may contain medical findings of interest to the patient's treating physician. A copy of the consultant's report may be sent to the treating physician upon request.

## Making the Decision

Some physicians have had the experience of referring patients with seemingly similar medical conditions to social security, only to discover that one patient is allowed disability insurance benefits, and another is turned down. Why? Generally, a person who is not working will be found disabled if he has an impairment, or combination of impairments, which meet or equal the level of severity established under the medical criteria listed in the regulations. (Meeting or equaling the medical criteria is the only way widows and widowers can qualify for disability benefits.) For claimants whose impairments fall short of the level of severity described in the medical criteria, nonmedical factors such as age, education, training, and work experience, are considered, together with the functional limitations imposed by the impairment, in deciding whether to allow or deny the claim.

For example, an older person who has little education or training and whose job experience has been quite limited, may be prevented from working by an impairment which might not be disabling to another person with a more favorable vocational background.

The complete criteria, including the medical findings listed by body system, are contained in the publication *Disability Evaluation Under Social Security—A Handbook for Physicians*. This handbook is designed with the physician reader in mind. It describes impairments in terms of specific symptoms, signs, and laboratory findings that are presumed to be severe enough to prevent a person from working. The handbook can be obtained without charge by writing to: Professional Relations Staff, Bureau of Disability Insurance, Social Security Administration, Room 7407, Dickinson Tower, Baltimore, Maryland 21241.

## Wider Implications of Disability Decision

The decision to award social security disability benefits involves considerably more than just the issuance of a monthly check. For one thing, it entitles a disabled worker to be considered for vocational rehabilitation. Indeed, a major objective of the disability program is to encourage a disabled person to undertake rehabilitation and become self-supporting again. State vocational rehabilitation agencies have reported that many thousands of disabled beneficiaries have been removed from the disability benefit roles because of recovery or return to work.

Money to finance the rehabilitation of persons receiving disability checks is made available from social security trust funds. An informative leaflet, *Target Rehabilitation* (HEW Publication No. 75-10067 [SSA]), enumerates the major points of the social security rehabilitation program, and is directed at the professional who works with the disabled. It is available free at any social security office.

Another benefit to persons disabled under social security is Medicare protection. The law provides that any disabled person who has been receiving social security disability checks for two consecutive years or more, regardless of age, is eligible for this Medicare protection.

## Supplemental Security Income

As the title indicates, the supplemental security income (SSI) program is designed to supplement income from other



sources for blind or disabled persons with limited income and resources. The same basic definitions of disability and blindness apply as in the social disability program. However, there are some differences. Briefly, these differences are:

1) *No waiting period.* Under SSI, payment is possible for the first month in which a person both filed an application and is disabled. There is no waiting period to be served after the onset of disability during which payment cannot be made. (Under social security, a five-month waiting period must be served after the onset of disability.)

2) *Presumptive disability.* SSI provides that an applicant for disability benefits who is found to be "presumptively disabled" may be paid, under certain conditions, for as many as three months while a formal determination of his disability is being made.

3) *Disability in children under 18.* Under SSI, a child under 18 may be found disabled if he has a medically determinable physical or mental impairment (or combination of impairments) which has lasted or is expected to last for at least 12 consecutive months, and which is of a severity comparable to that which would prevent an adult from engaging in substantial gainful activity. The disability determination in cases where the child is under age 18 is based purely on medical considerations. To facilitate the decision-making process, additional medical criteria directly applicable for determining disability in children are being provided.

4) *Drug addiction and alcoholism.* For purposes of the SSI program, an individual is "medically determined" to be a drug addict or alcoholic only if he is undergoing treatment appropriate for his condition as an addict or alcoholic at an approved institution or facility, if such treatment is available, and if his addiction materially contributes to the finding that he is disabled. The SSI law requires that such individuals receive their SSI payments through a representative payee.

5) *Blindness.* The definition of blindness under SSI is identical to the statutory definition of blindness under social security. Under SSI, however, engagement in substantial gainful activity will not preclude SSI payments if the statutory definition of blindness is met, although the SSI payments may be reduced under the income limits. Also, since there is no requirement of duration for blindness under SSI, a favorable decision can be based on temporary blindness.

For more detailed information about the supplemental security income program, a special leaflet, *A Guide to Supplemental Security Income (HEW Publication No. [SSA] 75-11015, July 1975)*, is available free at any social security office.

#### Physicians Participate in Several Ways

The practicing physician plays an important role in the disability determination process.

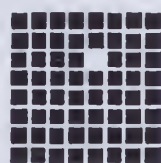
**First**—the treating physician is the primary source of initial medical evidence in a claim for disability benefits.

**Second**—where additional evidence is needed in a claim, a consultative examination may be arranged with the treating source or another practicing physician at the expense of the DDS.

**Third**—the actual determination of disability is made in a state Disability Determination Service, and a physician in that state is an essential member of the evaluation team that makes the decision.

Physicians who wish to learn more about the disability insurance program, or may be interested in providing consultative services, should contact the Disability Determination Service in their state. Any social security office will gladly furnish the address and telephone number.

Physicians in private practice are covered by social security—and have been since the 1965 amendments to the Social Security Act. Their coverage began with the taxable years ending December 1965, or after. Disability benefits, too, may be paid to the physician/claimant who meets the criteria. ●



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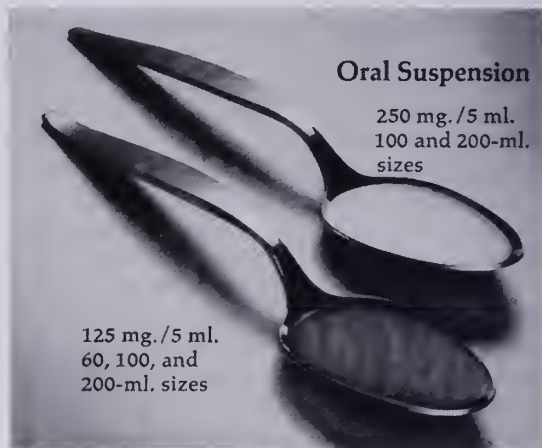
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# Clinical Use Of Counterimmunoelectrophoresis In Diagnosis Of Meningitis

George M. Converse, M.D.\*,

Paula M. Stewart, B.A. and J. Owen Hendley, M.D.

## ABSTRACT

Cerebrospinal fluid (CSF) from 79 pediatric patients with acute meningitis and from 46 controls without meningitis was examined for the presence of bacterial antigens using counterimmunoelectrophoresis (CIE). Bacterial antigen was detected in pretreatment CSF from 19/21 patients with *H. influenza*, 3/7 with meningococci and 2/3 with pneumococci. 13/24 partially treated patients had a positive CSF culture; six being positive with the homologous bacterial antiserum. Among the 11 CSF specimens examined from patients with negative CSF cultures, a single positive CIE result (*H. influenzae*) was obtained.

CIE on spinal fluid is feasible for use as an adjunctive test in a routine hospital laboratory for rapid identification of the etiology of bacterial meningitis. Although it is specific, it is less sensitive than culture making it useful only when positive.

## INTRODUCTION

Detection of bacterial antigens in cerebro-spinal fluid with counterimmunoelectrophoresis (CIE) provides a rapid means of establishing the etiology of bacterial meningitis<sup>1-4</sup>. To be useful in pediatric practice, however, the technique should be adaptable to a hospital laboratory and be both sensitive and specific. In this study, the reliability of CIE in a clinical laboratory setting in predicting the etiology of meningitis was evaluated with spinal fluid from children with and without meningitis, using commercial antisera to the three bacteria common in meningitis.

## MATERIAL AND METHODS

Patients — CSF samples from 125 pediatric patients at Charity Hospital, New Orleans, Louisiana, were studied. Multiple samples were available from 87% of the patients with meningitis. CSF was cultured for bacteria by standard methods.

The type of meningitis was classified according to criteria detailed previously<sup>5</sup>.

- I. Bacterial meningitis — 44 patients; no prior treatment and positive culture. Twenty-six patients had *Hemophilus influenzae*, eight meningococcus, and five pneumococcus. Five patients had meningitis due to other bacteria, including pseudomonas, group B streptococcus, enterococcus, micrococcus species, and enterobacter.
- II. Non-bacterial meningitis — 11 patients; no prior treatment and negative culture. Diagnosis included aseptic meningitis (8 patients), pleocytosis due to staphylococcal epidural abscess (1), mastoiditis (1), and subarachnoid hemorrhage (1).
- III. No meningitis — 46 patients; normal CSF and negative culture.
- IV. Partially treated meningitis — 24 patients; oral antibiotics given prior to lumbar puncture. Thirteen of these patients had positive CSF cultures; all had abnormal CSF.

**CIE**—The method of Coonrod and Rytel<sup>6</sup> was used except that a constant current of 40 milliamps instead of constant voltage was applied across the slide for 30 minutes. Aliquots of CSF were placed in three cathodal wells opposite wells containing the antisera to pneumococci, *Hemophilus influenzae* type b, and meningococci. Slides were read immediately after electrophoresis and after overnight refrigeration for a precipitin line between the wells. (Fig. 1). **Antisera** — Three antisera were employed: *Hemophilus influenzae*, type b (catalog number 080-322, Hyland Laboratories, Costa Mesa, California); meningococcus groups A-D (catalog number AM-18, Burroughs Wellcome Co., New York, New York); Omniserum against all 82 pneumococcal serotypes (State Serum Institute, Copenhagen, Denmark).

## RESULTS

Thirty-nine patients had bacterial meningitis due to one of the three organisms tested. Prestreatment CSF was available for testing in 31. As shown in Table I, bacterial antigen was detected in CSF from 24 of 31 (77%) and matched the organism grown in culture in every case. 19 of 21 (90%) pretreatment specimens from patients with *Hemophilus influenzae* meningitis were positive. CIE appeared to detect the antigen of *Hemophilus influenzae* more reliably than those of meningococcus or pneumococcus, although the number of patients with the latter organisms was small. Sensitivity of antigen detection during the first three days of treatment declined from 77% initially to 47% at 48 hours.

From the Department of Pediatrics, University of Virginia School of Medicine and the Tulane University School of Medicine. Presented in part at the Plenary Session, Southern Society for Pediatric Research, New Orleans, January 1975.

Organism	Hours on Antibiotic Therapy		
	0	24 <sup>+</sup>	48 <sup>+</sup>
<i>H. Influenzae</i>	19/21 (90) <sup>+</sup>	7/9 (77)	7/13 (53)
<i>Meningococcus</i>	3/7 (42)	1/3 (33)	1/4 (25)
<i>Pneumococcus</i>	2/3 (67)	0/1 (0)	2/4 (50)
Total	24/31 (77)	9/13 (69)	10/21 (47)

Results expressed as No. Positive/No. Tested (%)

<sup>+</sup> Approximate; Range 12-36 hours

<sup>+</sup> Approximate; Range 37-60 hours

**TABLE 1: CIE on spinal fluid from 39 patients with bacterial meningitis.**

CIE with the three antisera was negative in all five patients with meningitis due to other bacteria, the eleven patients with non-bacterial meningitis, and the forty-six patients who did not have meningitis. Therefore, CIE was specific when positive, but antigen was not detected in pretreatment CSF from 23% of patients with bacterial meningitis.

Usefulness of CIE in establishing the etiology of partially treated meningitis with a negative CSF culture was examined. Thirteen of the 24 patients with partially treated meningitis had a positive CSF culture; 10 of these CSF samples were examined by CIE, six being positive with the homologous bacterial antiserum. Among the 11 CSF specimens examined from patients with negative CSF cultures, a single positive CIE result (*H. influenzae*) was obtained.

### COMMENT

CIE on spinal fluid is a rapid test which can be read within 1-2 hours after CSF is obtained; it may also establish the bacterial etiology of partially treated meningitis with negative cultures<sup>3,4</sup>. In this study, CIE results and culture results correlated best among patients with *H. influenzae* meningitis (19/21). However, negative CIE results in a number of patients with proven bacterial meningitis raise questions concerning sensitivity of this method with the antisera employed. Others have found false negative CIE results in bacterial meningitis to range from 7 to 21%<sup>1-4</sup>. Conceivably, more potent antisera, especially to meningococci and pneumococci could increase the reliability of this method. CIE used in conjunction with carefully done cultures of CSF for bacteria may be helpful in the management of children with meningitis, providing no conclusion is drawn from a test in which no bacterial antigen is detected. ●



**Figure 1. Positive CIE test for Hemophilus influenza type b. There is a white immunoprecipitin line between the wells containing test CSF (top left) and antisera to Hemophilus influenza type b (top right).**

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# Sex Hormones And Congenital Malformations: A Review

Kathleen G. Nelson, M.D. and Robert L. Goldenberg, M.D.\*

Several recent reports have linked the administration of estrogenic and progestational hormones during pregnancy with an increased incidence of birth defects. We would like to review this data and make several recommendations about the use of these agents during pregnancy, commenting specifically about hormonal tests for pregnancy and the use of progestational agents in the face of a threatened abortion.

It has long been known that the administration of progestational agents may cause virilization of the female fetus and possible under-masculinization of the male fetus.<sup>1</sup> It is now well documented that female children exposed in utero to the estrogenic compound diethylstilbestrol have a higher proportion of vaginal carcinoma than could be predicted by chance alone.<sup>2</sup>

The first report of a possible connection between the administration of female hormones and congenital malformations appeared in *NATURE* in 1967. Gal et al reported on a survey of one hundred women who had delivered infants with neural tube malformations. This group was compared to a control group composed of one hundred women with normal infants. Nineteen of the mothers in the survey group as compared to four mothers in the control group had taken an oral medication to diagnose pregnancy.<sup>3</sup>

In April 1973, Nora & Nora reported that 50 patients with the VACTERL syndrome\* and two patients with DeGeorge syndrome\*\* had first trimester exposure to a progestin-estrogen combination drug or a progestational agent alone.<sup>4</sup> This history prompted them to look retrospectively at a population of 224 infants with congenital malformations. They found that 20 of 224 mothers received estrogen and/or a progestational agent during pregnancy compared to only 4 of 264 control mothers. In response to this information, Kaufman also looked back at a case of VACTERL that he had reported and obtained a more complete history that indicated exposure to an estrogenic-progestational agent.<sup>5</sup>

In August 1973, Oakley et al reported on a retrospective study of mothers of children with cleft lip, cleft palate, intestinal atresia, oomphalocoele, diaphragmatic hernia, limb reduction deformities and multiple congenital malformations. Mothers were interviewed 3 months post-partum and asked if they had received oral or injectable medications to confirm pregnancy. Forty-six of 43 patients reported receiving this type of medication.<sup>6</sup>

Janerich et al investigated exposure to exogenous sex steroids in 108 mothers of patients with limb reduction deformities and 108 controls. Fourteen percent (15/108) of mothers with malformed children as compared to four

percent of mothers with normal children had been exposed. Affected children with a history of exposure were all male.<sup>7</sup>

Unfortunately most of the investigations linking sex hormones and birth defects have been retrospective,<sup>3,4,6,7</sup> often anecdotal<sup>5,9</sup> and may be biased by the fact that parents of children with congenital malformations may be more likely to remember and report use of drugs during pregnancy than those families with normal infants.

Preliminary prospective data is available in abstract form only.<sup>10</sup> 50,282 pregnancies were analyzed for drug ingestion. Suggestive evidence was found for a relationship between maternal exposure and congenital malformations in the 2,277 mothers who received a female sex hormone during pregnancy. This relationship appears to be manifested by a higher occurrence of cardiovascular malformations but not limb reduction deformities.<sup>11</sup>

Of interest is the speculation by Nora and Nora<sup>8</sup> that perhaps there is an underlying predisposition of certain maternal-fetal units to the teratogenic effects of sex hormones, and perhaps this predilection is related to an increased fecundity. Evidence for this theory includes: 1) a high frequency of twinning in the affected groups; 2) several women who became pregnant on oral contraceptives despite their regular use; 3) a high age-specific fertility rate in the affected group and 4) an apparent increase in the number of women who become pregnant almost immediately after the discontinuation of oral contraceptives.

It should be noted that the magnitude of the increase in the incidence of congenital malformations seen with the use of sex hormones appears to be relatively small. The epidemiologic impact seems not to be related to high risk for each individual exposure but to the high number of exposures from widespread use.<sup>8</sup>

In summary, there is evidence that progestational agents given alone or in combination with estrogens may result in an increased incidence of congenital malformations. While further prospective studies are needed to confirm this relationship, we suggest that in the face of the evidence described:

1. The use of withdrawal-type pregnancy tests be abandoned in favor of urinary immunologic testing.
2. The use of progestational agents as prophylactic treatment for threatened abortion be abandoned especially since there is no evidence that these agents lead to a higher rate of fetal salvage.<sup>12,13</sup>
3. Prior to the use of any sex hormone medication such as oral contraceptives, every effort should be made to assure that the woman is not pregnant.
4. Those women who become pregnant while using hormonal contraceptives or inadvertently take sex steroids while they are pregnant should discontinue the medication immediately and be advised of the possibility of an increased although still relatively low incidence of congenital malformations. ●

\*A complex of malformations involving vertebral, anal, cardiac, tracheoesophageal, renal and limb anomalies.

\*\*Apasia of thymus and parathyroid glands.

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# Prevention And The Family Checkup Pattern

by  
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and  
W. M. Ringsdorf, Jr., D.M.D., M.S.\*\*

## INTRODUCTION

Except for a comparatively few absolutely hereditary disorders, life experiences, rather than inherited characteristics, are likely the major ingredients that delineate one individual's problems from another. Thus, it figures that much more attention should be focused upon environmental forces in the genesis of health and disease. Additionally, such a philosophy minimizes the element of hopelessness and despair which so frequently ensues when a syndrome is ascribed to exclusively hereditary causation.

This report has, as its prime mission, to assess the relative practical weight of genetic versus environmental influences upon health and disease states. The strategy will be to accent the role of the environment in a series of clinically critical areas generally not regarded as being environmentally dominated. Thus, for purposes of this treatise, cursory consideration will here be accorded to the possible environmental influences upon clinical symptoms and signs, blood biochemical patterns, blood enzyme state, and dietary habits<sup>1</sup>. These four especial sets of parameters have been quite deliberately identified because they fit into the experimental model which has been discussed elsewhere (Figure One).

Mention has earlier been made that man may be likened to a multilamellated sphere<sup>2</sup>. However one inspects the surface of an inanimate sphere or man, it looks the same. Admittedly, by one examination technique, there may be a limp indicative of a cerebrovascular accident. Viewed from another aspect, there may be a cataract. These and all other peripheral stigmata which have finally erupted into the outer layer of the sphere possess a common denominator; they collectively represent an index of what might be called the *syndrome of sickness*.

As progressively deeper lamellae are unfolded and explored, one eventually brings into view the central problems which are customarily imprisoned at the core. Once again, this is equally true of the inanimate sphere and of man.

The outer, the most superficial, ring is the most readily visible. At this level, it is possible to evolve three different types of judgments. First, one can readily record the ravages of classical disease. This includes, for example, the gangrenous leg in the terminal stages of diabetes mellitus. Second, signs and symptoms prevail which can be structured to provide an estimate of the extent of pathosis referable to a particular system such as the gastrointestinal tract or to a special site such as the eye or the skin. Hence, one can estimate the extent of a problem in one of these areas even though the clinical constellation may not fit the

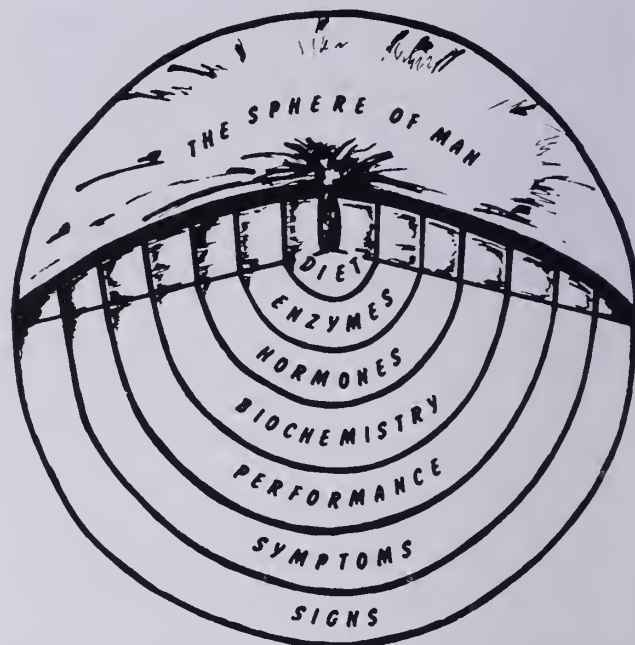


Figure One. Man may be likened to a lamellated sphere. The periphery of both are easily inspected. Layers can be removed which progressively expose the core problems.

textbook account of a special syndrome. Thus, it is feasible to conclude that the patient has a predominance of cardiovascular symptoms and signs without assigning a specific cardiac label. Finally, at this external layer, one can calculate the numbers of signs of pathosis without any regard as to how or where the symptoms and signs of pathosis fit into the systems or sites of classical disease terminology. Hence, by this method, one can note one patient has ten findings while another reports thirty clinical symptoms and signs. In other words, thirdly, one can simply utilize the total number of clinical findings as a barometer of incipient disease.

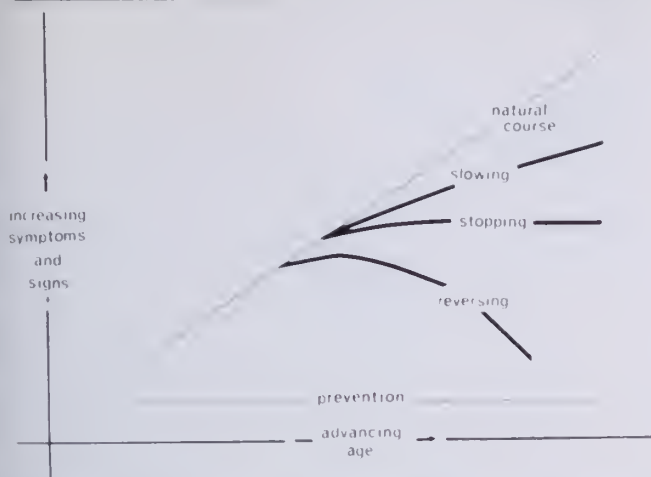
The latter approach has enormous utility in a predictive medicine program. For example, it is a well-established fact that, with advancing age people tend to report progressively more symptoms and signs (Figure Two). Also, it is a well-agreed upon fact that elderly persons die more readily than younger individuals. Finally, it is admitted that elderly persons with clinical symptoms and signs die more readily than elderly subjects without clinical findings. It follows, from this analysis, that older people with relatively few clinical symptoms and signs are, in fact, clinically younger than others with more findings. Also, any slowing, stopping, or reversing of the process is indeed a measure of return to clinical youth. (Figure Two).

It is clear that the total number of clinical findings is an important index of incipient disease. For this reason, it will

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**Figure Two.** In general, with advancing age, there is an increase in the number of clinical symptoms and signs. Successful therapy may lead to slowing, or stopping, or sometimes reversing the usual course of events. Thus, in a sense, one becomes clinically younger.

be one of the purposes of this report to scrutinize such data in the husband versus the wife with regard to its possible genetic versus environmental implications.

Removing the sign, symptom, and performance layers (Figure One) unearths the biochemical pattern. This is a very complex, controversial but often highly productive area. The number of biochemical items that can be studied in the blood, urine, feces, sweat, tears and breath seems almost endless. For purposes of this discussion, an analysis will be made of the familial serum cholesterol concentrations with a view to determine the relative genetic versus environmental import.

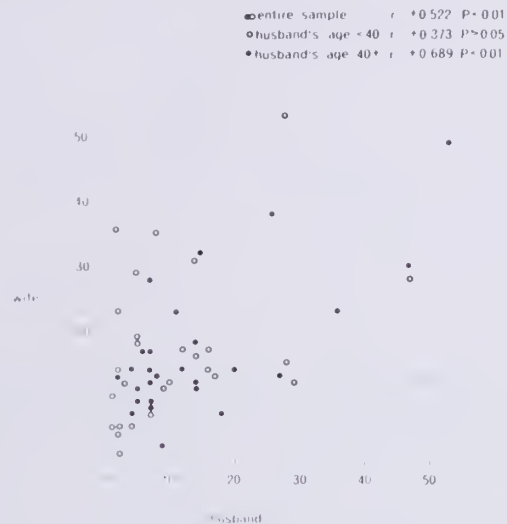
At the near-center of the core is the enzyme layer (Figure One). Many of the two thousand plus enzymes are now available for clinical diagnostic and prognostic pur-

	number of pairs	r	P
husband vs wife	54	+0.522	<0.01*
husband vs unrelated female	54	+0.122	>0.05
wife vs unrelated female	54	+0.117	>0.05
husband vs wife			
[husband's age <40]	27	+0.373	>0.05
[husband's age 40+]	27	+0.689	<0.01*
husband vs unrelated female			
[husband's age <40]	27	+0.249	>0.05
[husband's age 40+]	27	-0.038	>0.05
wife vs unrelated female			
[age <40]	35	+0.186	>0.05
[age 40+]	19	-0.247	>0.05

\*statistically significant correlation coefficient

**Table 1.** Correlation coefficients of clinical symptoms and signs.

reported clinical symptoms and signs (CMI scores) in the dentist and his wife



**Figure Three.** The relationship of the frequency of reported clinical symptoms and signs (CMI scores) in the husband (on the x-axis) and in the wife (on the y-axis). For the entire group, the correlation coefficient ( $r = +0.522$ ) is significant ( $P < 0.01$ ). The correlation coefficient ( $r = +0.689$ ,  $P < 0.01$ ) is even higher in the older married couples (black dots).

poses. For instance, serum glutamic oxalacetic transaminase, also known as SGOT, is now commonly employed as a predictive tool of impending cardiovascular disease. Since enzymes play a very fundamental role in metabolism, enzymic imbalance is a sensitive pulse of changes in the more peripheral layers. For this reason, this report will include an analysis of the enzyme state in the family unit with regard to genetics versus the environment.

As one progressively peels off more layers (Figure One), one finally arrives at the core which is illustrated, in this instance, by diet. However, it should be reemphasized that other central factors also must be considered such as genetics, pollution, alcohol, tobacco, and coffee and tea. Since dietary elements are the essential building blocks from which the enzymes and hormones are manufactured, it is apparent that all of the more superficial zones reflect the effects of dietary imbalances, inadequacies, or excesses.

For these very reasons, this report will incorporate a consideration of the familial dietary patterns designed especially to evaluate genetic versus environmental effects.

### Clinical State and the Environment

Fifty-four married couples and 54 age- and sex-paired wives of other males were studied in terms of clinical scores as determined by the Cornell Medical Index Health Questionnaire, abbreviated CMI. Table One outlines the relationship between the number of clinical findings in the husband-wife combination (in line one), the husband and the unrelated female group (in line two), and the two female groups (in line three). It is clear, as judged by an  $r = +0.522$  and a  $P < 0.01$ , that only in the married couples is there a

	number of pairs	r	P
husband vs wife	196	+0.367	<0.01*
husband vs unrelated female	196	+0.085	>0.05
wife vs unrelated female	196	+0.271	<0.01*
husband vs wife [husband's age <41]	99	+0.196	>0.05
[husband's age 41+]	97	+0.440	<0.01*
husband vs unrelated female [husband's age <41]	99	+0.012	>0.05
[husband's age 41+]	97	+0.016	>0.05
wife vs unrelated female [age <39]	96	+0.129	>0.05
[age 39+]	100	+0.209	<0.05*

\*statistically significant correlation coefficient

Table 2. Correlation coefficients of serum cholesterol levels.

statistically significant correlation. The immediate question which arises is whether couples tend to select themselves on the basis of the number of clinical symptoms and signs. Line five shows the correlation in the younger married couples, specifically in the 27 couples in which the husband is under forty years of age. It is clear that the correlation coefficient is not significant. In contrast, as shown on the very next line, there is a statistically significant correlation coefficient of +0.689 in the older married couples. In the interest of completeness, this chart shows no other significant correlations in the husband versus unrelated female groups nor in the female groups.

In brief (Figure Three), men with many symptoms and signs tend to be living with women with many symptoms and signs. In contrast, men with few clinical findings tend to be living with women with few clinical findings. That this phenomenon is not due to preselection is shown by the lack of correlation in the younger couples, the open circles, and the significant relationship in the older married groups pictorially portrayed by the black dots. Three additional points should be cited. First, these same clinical parallelisms have been previously noted in another and larger group studied in terms of clinical findings and these same correlations have been derived from a study of the psychologic symptoms and signs in this same group. Second, in a recent random sample of 499 families, it was noted that poor health in one parent was generally found to be associated with poor health in the other parent. The cardinal point to be made is that significant parallelisms in the husband and wife cannot be ascribed to genetic influences since it is indeed rare for genetically-related people to marry. Hence, since this pattern is environmentally inspired, it would seem to expect that it could be environmentally altered.

nonfasting serum cholesterol in the dentist and his wife

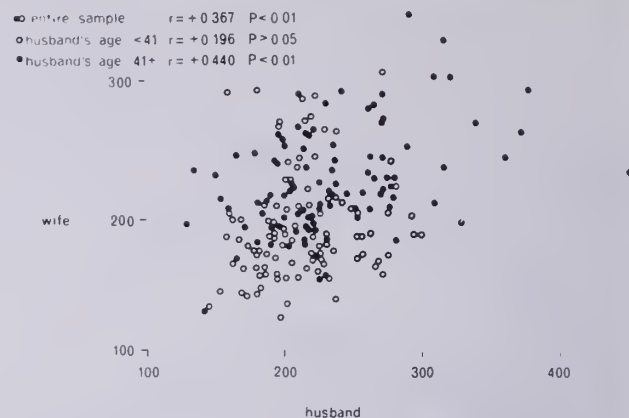


Figure Four. The relationship of nonfasting serum cholesterol (mgm. per cent) in the husband (on the horizontal axis) and in the wife (on the vertical axis). For the entire sample, the correlation coefficient ( $r = +0.367$ ) is significant ( $P < 0.01$ ). The correlation coefficient ( $r = +0.440$ ,  $P < 0.01$ ) is even higher in the older married couples (black dots).

## Biochemical Patterns and the Environment

As one progressively removes the layers for signs, and symptoms, and for performance, into focus comes the zone of biochemical patterns (Figure One). Earlier mention has been made that this is the most commonly studied area next to the peripheral clinical zone. Hundreds of biochemical tests are now being used for diagnostic, therapeutic, and prognostic purposes. For purposes of this discussion, serum cholesterol has been selected because of the fact that it is one of the most popular parameters presently employed and because of its identification with the coronary proneness profile.

Table Two summarizes the serum cholesterol results in 588 subjects grouped as husband and wife (in line one), husband and the unrelated female (in line two), and wife versus unrelated female (in line three). There is a significant correlation between the two female groups as will be noted by a correlation coefficient of +0.271 and a  $P < 0.01$ . Thus, in this regard, the biochemical pattern differs from the clinical picture. However, there is a much higher correlation in the husband and wife combination as demonstrated by a correlation coefficient of +0.367 and a  $P < 0.01$ . In this latter connection, the findings are similar to those just described at the clinical level. Once again, the question must be asked as to whether the parallelism may be part of mate selection. Table Two shows that the correlation is not significant in the younger married couples. In other words, as with the case of clinical findings, only the older married groups show a statistically significant correlation coefficient of +0.440.

In short (Figure Four), men with hypercholesterolemia tend to be living with women with hypercholesterolemia. In contrast, the husbands without hypercholesterolemia tend to be associated with females without hypercholesterolemia. That this phenomenon is not accounted for by



	number of pairs	r	P
husband vs wife	48	+0.215	>0.05
husband vs unrelated female	48	+0.132	>0.05
wife vs unrelated female	48	-0.050	>0.05
husband vs wife [husband's age <44]	25	-0.023	>0.05
[husband's age 44+]	23	+0.686	<0.01*
husband vs unrelated female [husband's age <44]	25	+0.258	>0.05
[husband's age 44+]	23	-0.058	>0.05
wife vs unrelated female [age <43]	22	-0.071	>0.05
[age 43+]	26	-0.123	>0.05

\*statistically significant correlation coefficient

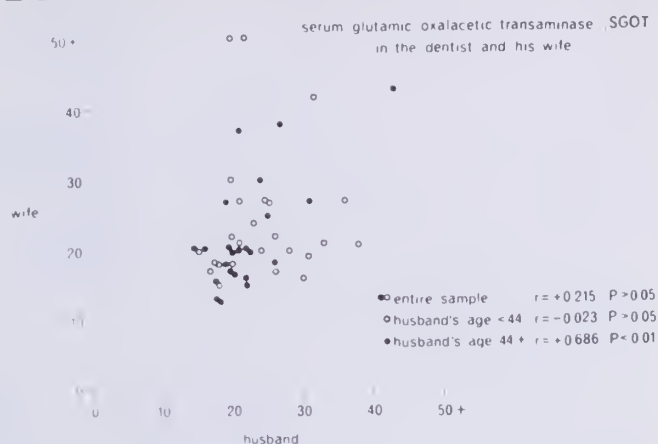
**Table 3. Correlation coefficients of serum glutamic oxalacetic transaminase [SGOT] levels.**

preselection is shown by the lack of correlation in the younger couples, the open circles in the illustration. The significant relationship in the older married couples is pictorially portrayed by the black dots. Three additional points should be emphasized. First, these same chemical parallelisms have been noted with serum albumin and blood glucose. This is especially noteworthy since overwhelmingly more attention is given to the genetic versus the environmental basis of diabetes mellitus. Second, the cardinal point to be reinforced is that significant relationships in husband and wife cannot be ascribed to genetic forces since it is only rarely that people with similar genetic backgrounds marry. Finally, since biochemical homeostasis seems to be largely a function of the environment, it would appear reasonable to expect that it should be altered by a change of the environment.

### Enzymes and the Environment

Continuing with the peeling process, one arrives at the level of the enzymes (Figure One). The importance of enzymes is unquestioned. What should be underlined is that disturbances at the enzyme level predate imbalances at the more peripheral levels.

By means of the format already described, 48 married couples as shown in line one (Table Three) were compared with the husband versus unrelated female (line two) and female groups (line three) with regard to serum glutamic oxalacetic transaminase, abbreviated SGOT, levels. The chart shows no statistically significant correlations in any of the three groups though the correlation coefficient is highest in the married couples. In this regard, the pattern at the enzyme level is somewhat different than earlier described at the biochemical and clinical levels. A more detailed analysis reveals no significant parallelism in the younger groups. This is surely quite in accord with the



**Figure Five. The relationship of serum glutamic oxalacetic transaminase (SGOT) in the husband (on the horizontal axis) and in the wife (on the vertical axis). For the entire sample, the correlation ( $r = +0.215$ ) is not significant ( $P < 0.05$ ). The correlation coefficients for the younger (open circles) and older (black dots) couples are markedly different. A statistically significant correlation coefficient ( $r = +0.686$ ,  $P < 0.01$ ) is noted in the older married group.**

earlier biochemical and clinical findings. Finally, there is a statistically significant correlation coefficient of +0.686 and  $P < 0.01$  in the older married couples (as pictured in line six).

In brief, (Figure Five), the males characterized by elevated serum glutamic oxalacetic transaminase tend to live with females with elevated serum glutamic oxalacetic transaminase. Conversely, the husbands without elevated transaminase tend to be associated with women without elevated enzyme levels. Once again, transaminase is clearly not one of the elements which leads to the marital union since the correlation coefficient only becomes significant in the older married couples as judged by the black dots and a correlation coefficient of +0.686 and a  $P < 0.01$ . Two added points are relevant. First, similar findings have been noted for lactic dehydrogenase, also known as LDH. As a matter of fact, the correlation coefficient in married couples is of a magnitude of +0.937. Also, the conclusion must be drawn that environmental influences govern enzyme levels just as they do biochemical and clinical findings since genetic variables do not play a significant role in married couples. Therefore, it would be reasonable to expect that enzyme levels should be manageable by environmental techniques.

### Diet and the Environment

Finally, one arrives at the core problems which include physical activity, tobacco, alcohol, coffee and tea, pollution, and diet as shown in this particular model. (Figure One).

To demonstrate environmental influences upon diet, the daily refined carbohydrate consumption was ascertained from a seven-day dietary survey in a group of 82 dentists, their 82 wives, and 82 wives of other dentists age-paired with the wives of the dentists. Refined carbohydrate foodstuffs include table sugar, desserts, sweet beverages and

	number of pairs	r	P
husband vs wife	82	+0.520	<0.01*
husband vs unrelated female	82	+0.002	>0.05
wife vs unrelated female	82	-0.078	>0.05
husband vs wife [husband's age <41]	40	+0.442	<0.01*
[husband's age 41+]	42	+0.669	<0.01*
husband vs unrelated female [husband's age <41]	40	+0.109	>0.05
[husband's age 41+]	42	-0.094	>0.05
wife vs unrelated female [age <40]	43	-0.105	>0.05
[age 40+]	39	-0.015	>0.05

\*statistically significant correlation coefficient

Table 4. Correlation coefficients for daily refined carbohydrate consumption.

bakery items. Table Four shows the correlation coefficients for daily refined carbohydrate consumption in the husband versus the wife (in line one) the husband versus the unrelated female (in line two), and the wife versus the unrelated female (in line three). It will be observed that there is only a statistically significant correlation of +0.520 in the married couples. Thus, the findings here with diet at the core level are not materially different than the observations made more peripherally at the biochemical and clinical levels. This table also summarizes the correlation coefficients for the younger versus the older couples. It will be observed that the correlation is significant in the younger married group which sets these relationships apart from those earlier described. However, the relationship is much higher (+0.669,  $P<0.01$ ) in the older married group which is quite similar to what was observed at the enzymic, biochemical, and clinical levels.

In summary (Figure Six), the men who consume the larger amounts of refined carbohydrate foodstuffs tend to live with women who eat large amounts of refined carbohydrate foods. Conversely, men who eat large amounts of refined carbohydrate foods. Conversely, men who eat few such foods are living with women who consume few such foodstuffs. Clearly, this is quite similar to what has been previously noted at other levels in the sphere of man. Two additional points should be appended. First, the observations noted here with refined carbohydrate foodstuffs have also been found with total carbohydrates, total calories, fats, proteins, and vitamin A consumption. Finally, this is still more evidence that environment plays a dominant role since genetics cannot be regarded as a significant factor in married couples.

#### Practical Considerations

Having demonstrated that environmental factors operate *within* every level in man, the next point is to illustrate that such environmental forces operate *between* different lamel-

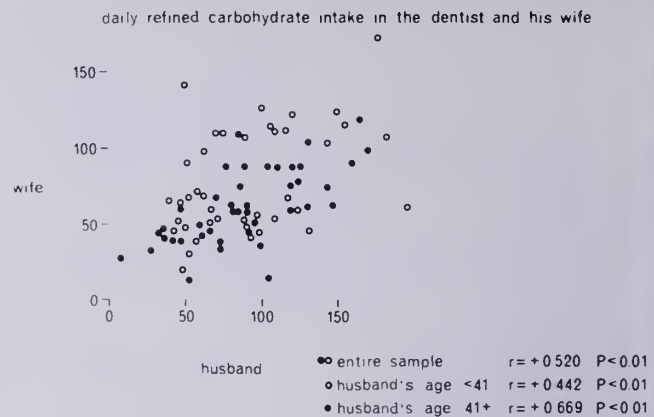


Figure Six. The relationship of daily refined carbohydrate consumption (in grams) in the husband (on the abscissa) and in the wife (on the ordinate). For the entire sample, the correlation coefficient ( $r = +0.520$ ) is highly significant ( $P < 0.01$ ). The correlation coefficient ( $r = +0.669$ ,  $P < 0.01$ ) is even higher in the older married couples (black dots).

lae (Figure Seven). For example, what are the interrelationships between diet as a central problem and the clinical picture at the periphery?

To demonstrate this relationship, 240 health practitioners and 191 of their wives shared in an experiment<sup>3</sup>. At the initial visit, each participant completed the Cornell Medical Index Health Questionnaire. The questions are so structured that a positive answer suggests pathology. Hence, by simply summing the number of affirmative responses, a crude estimate of the syndrome of sickness, of incipient illness, can be formulated (Figure Eight). This is the box on the left showing how classical disease develops with few and unrelated findings which increase in number as indicated by the box in the center and finally crystallize as a classical syndrome in the box on the right. The scores ranged in this sample of 431 subjects from a low of 1 to a high of 70 with a mean and standard deviation of  $17 \pm 12$ .

Figure Nine pictorially portrays the mean number of findings in the male group at the initial examination. The top line shows the average number of positive responses in terms of age. Thus, we learn that, in the youngest group under forty years, the mean score is 13 complaints per person. The mean score rises to 15 and 18 in the intermediate and older age groups respectively. Thus, for the moment, these data seem to be in keeping with the well-recognized fact that, with advancing age, people tend to report more symptoms and signs (Figure Eight).

Figure Ten is a pictorial portrayal of the findings in the female group. At the initial visit shown by the top line, the mean scores rise with age as in the male from 18 to 21 to 23. However, the values at each age group are higher in the female sample.

Following the collection of the data, the groups met for discussions regarding the individual scores and what could be done to reduce them by dietary means. Generally speaking, most individuals were consuming large amounts of refined carbohydrate foods, marginally low protein intake, and suboptimal amounts of vitamins and minerals as



20  
150

# H

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# ING IS

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# AS PRECIOUS

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40

# AS SIGHT HAVE

20  
30

# YOU HAD YOUR HEARING

20  
20

# TESTED LATELY A SIMPLE

20  
15

# COMFORTABLE HEARING

20  
10

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**Note:** Carefully coordinate *in vitro* sulfonamide sensitivity tests with bacteriologic and clinical response; add aminobenzoic acid to follow-up culture media. The increasing frequency of resistant organisms limits the usefulness of antibacterials including sulfonamides. Measure sulfonamide blood levels as variations may occur; 20 mg/100 ml should be maximum total level.

**Contraindications:** Children below age 12; sulfonamide hypersensitivity; pregnancy at term and during nursing period; because Azo Gantanol contains phenazopyridine hydrochloride it is contraindicated in glomerulonephritis, severe hepatitis, uremia, and pyelonephritis of pregnancy with G.I. disturbances.

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**Precautions:** Use cautiously in patients with impaired renal or hepatic function, severe allergy, bronchial asthma; in glucose-6-phosphate dehydrogenase deficient individuals in whom dose-related hemolysis may occur. Maintain adequate fluid intake to prevent crystalluria and stone formation.

**Adverse Reactions:** Blood dyscrasias (agranulocytosis, aplastic anemia, thrombocytopenia, leukopenia, hemolytic anemia, purpura

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hypoprothrombinemia and methemoglobinemia); **allergic reactions** (erythema multiforme, skin eruptions, Stevens-Johnson syndrome, epidermal necrolysis, urticaria, serum sickness, pruritus, exfoliative dermatitis, anaphylactoid reactions, periorbital edema, conjunctival and scleral injection, photosensitization, arthralgia and allergic myocarditis); **G.I. reactions** (nausea, emesis, abdominal pains, hepatitis, diarrhea, anorexia, pancreatitis and stomatitis); **CNS reactions** (headache, peripheral neuritis, mental depression, convulsions, ataxia, hallucinations, tinnitus, vertigo and insomnia); **miscellaneous reactions** (drug fever, chills, toxic nephrosis with oliguria and anuria, periarteritis nodosa and L. E. phenomenon). Due to certain chemical similarities with some goitrogens, diuretics (acetazolamide, thiazides) and oral hypoglycemic agents, sulfonamides have caused rare instances of goiter production, diuresis and hypoglycemia. Cross-sensitivity with these agents may exist.

**Dosage:** Azo Gantanol is intended for the acute, painful phase of urinary tract infections. **Usual adult dosage:** 2 Gm (4 tabs) initially, then 1 Gm (2 tabs) B.I.D. for up to 3 days. If pain persists, causes other than infection should be sought. After relief of pain has been obtained, continued treatment with Gantanol (sulfamethoxazole) may be considered.

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\* **Indications:** When the fixed combination represents the dosage determined by titration: Adjunctive therapy in edema associated with congestive heart failure, hepatic cirrhosis, the nephrotic syndrome. Corticosteroid and estrogen-induced edema, idiopathic edema; hypertension, when the potassium-sparing action of its 'Dyrenium' component is warranted.

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**Warnings:** Do not use potassium supplements, dietary or otherwise, unless hypokalemia develops or dietary intake of potassium is markedly impaired. If supplementary potassium is needed, potassium tablets should not be used. Hyperkalemia can occur, and has been associated with

cardiac irregularities. It is more likely in severely ill patients with urine volume less than one liter/day, the elderly or diabetics, with suspected or confirmed renal insufficiency. Periodic determinations of serum  $K^+$  should be made. If hyperkalemia develops, substitute a thiazide alone, restrict  $K^+$  intake. The presence of a widened QRS complex or arrhythmia in association with hyperkalemia requires prompt additional therapy. Thiazides are reported to cross the placental barrier and appear in breast milk; fetal or neonatal hyperbilirubinemia, thrombocytopenia, altered carbohydrate metabolism and other adverse reactions that have occurred in the adult may result. When used in pregnancy or in women who might bear children, weigh potential benefits against possible hazards to fetus. Adequate information on use in children is not available.

**Precautions:** Do periodic serum electrolyte determinations (particularly important in patients vomiting excessively or receiving parenteral fluids). Periodic BUN and serum creatinine determinations should be made, especially in the elderly, diabetics, or those with suspected or confirmed renal insufficiency. Watch for signs of impending coma in severe liver disease. If spiro-lactone is used concomitantly, determine serum  $K^+$  frequently; both can cause  $K^+$  retention and elevated serum  $K^+$ . Two deaths have been reported with such concomitant therapy (in one, recommended dosage was exceeded, in the other serum electrolytes were not properly monitored). Observe regularly for possible blood dyscrasias, liver damage, other idiosyncratic reactions. Blood dyscrasias have been reported in patients receiving Dyrenium<sup>®</sup> (triamterene, SK&F Co.), and

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Figure Seven. The sphere of man emphasizing the role of diet, as one central or core problem, upon the periphery, the clinical state.

judged by the Recommended Dietary Allowances set forth by the Food and Nutrition Board of the National Research Council. For example (Figure Six), some individuals were consuming as much as 160 grams of refined carbohydrate foodstuffs per day which is approximately 40 teaspoons of sugar or its equivalent. It should be recalled that the glucose load administered for the glucose tolerance test is designed purely and simply to challenge the individual. Also, it should be recalled that the usual glucose load ranges from 50 to 100 grams. Hence, here are subjects, members of the health profession, who are clearly performing a glucose tolerance test on a daily basis. Clearly, the glucose tolerance test should not be performed each day!

At subsequent visits it was possible to compare the changes in the Cornell Medical Health Questionnaire responses and the changes in the dietary habits.

The lower line in Figure Eight is a summary of the Cornell Medical Index Health Questionnaire scores in the male in terms of age following lectures on diet. Three points are clear. First, the scores, as in the first visit shown by the top line, rise with age. Second, at every temporal point, the scores are lower at the second versus the first visit. Specifically, the reduction from 13 to 6 pathologic responses makes for a clinical reduction of 54 per cent in the youngest group. The percentage declines in the intermediate and older groups are 27 and 17 per cent. Hence, without becoming involved in the details of diet, this simple experiment demonstrates that clinical findings can be significantly reduced. Additionally, the improvement is greatest in the young and diminishes with advancing age.

In the interest of completion, Figure Nine summarizes the clinical scores before and after dietary instruction in terms of age in the female group. The initial versus final values are clearly different, with percentage reductions of 44, 19, and 26. However, the trends are very similar in the sexes underlining the point that it is possible to alter the clinical picture by simple dietary instruction in a significant segment of the population.

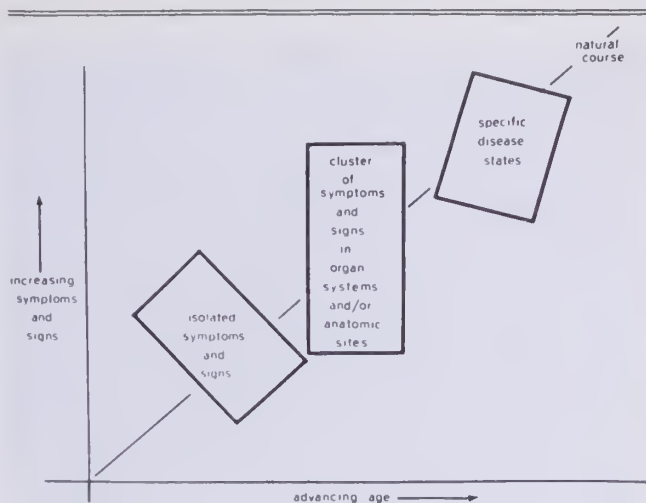


Figure Eight. The clinical sequence of events in chronic disease. At first, there are few and diverse symptoms and signs (box on the left). With time, the findings become more numerous and localized in a system or organ (middle box). Finally, the clinical evidence fits the textbook picture of a particular disease or syndrome (box on the right).

CMI responses in male subjects at first and second examination

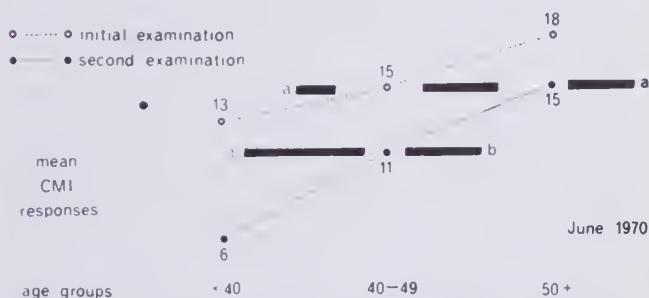


Figure Nine. Changes in clinical symptoms and signs (as measured by the Cornell Medical Index Health Questionnaire or CMI). The initial findings of 13, 15 and 18 rise with age. The final scores of 6, 11 and 15 also rise with age. However, the 50+ year-old male at the second visit is like the 40-49 year old at the start (line a-a). The 40-49 year old male at the end is clinically younger than the <40 year old at the beginning of the study (line b-b).

CMI responses in female subjects at first and second examination

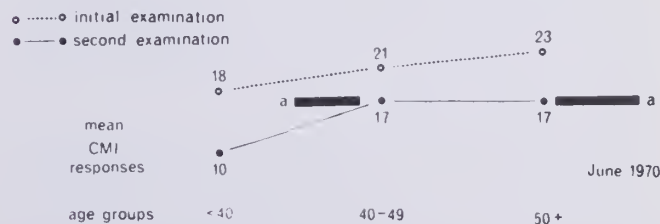


Figure Ten. Changes in clinical symptoms and signs (as measured by the Cornell Medical Index Health Questionnaire or CMI). The initial findings of 18, 21 and 23 in the female group rise with age. However, the 40-49 year old and the 50+ year old female at the end are clinically younger than the <40 year old at the beginning of the study (line a-a).

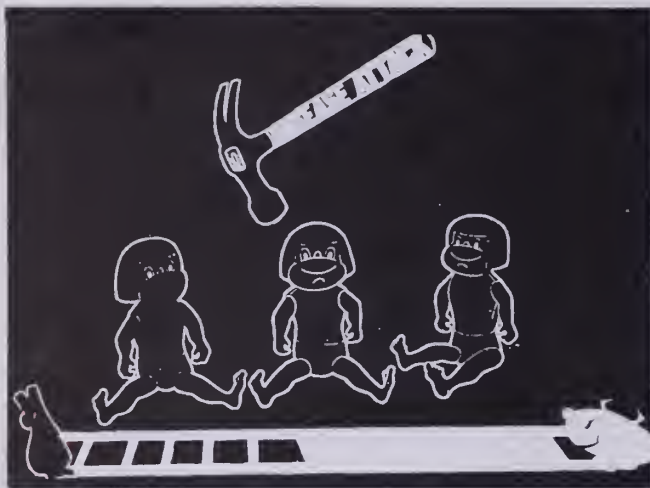


Figure Eleven. Doctor Jacques M. May states, "It is as though I had on a table three dolls, one of glass, another of celluloid, and a third of steel, and I chose to hit the three dolls with a hammer using equal strength..."

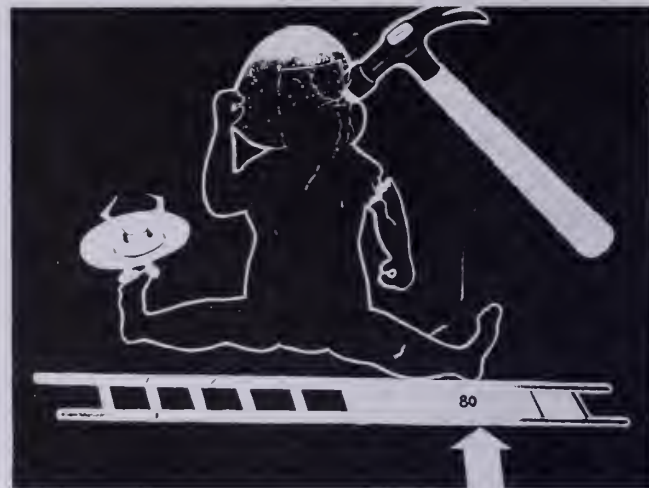


Figure Twelve. Doctor Jacques M. May continues, "The first doll (the glass doll) would break..."

The fact that it is possible by relatively simple techniques to alter the periphery of man is noteworthy for several reasons.

First, much has been written about the aging process. Five particular points warrant emphasis in this report. Initially, there is no generally acceptable cause nor measure of the aging phenomenon. Second, it is well-recognized that old people run a greater risk of becoming ill and dying. Third, it is clearly established that old people have more medical problems than young people. Fourth, it is appreciated that older subjects with medical difficulties pose a greater morbidity and mortality risk than older people without symptoms and signs. Last, the evidence here suggests that it is possible to slow, or arrest, or even reverse the aging process since the participants in this study demonstrated fewer symptoms and signs after a one year study period.

Second, one of the characteristics of the aging process is the progressive increase in symptoms and signs. Initially, and this is most prevalent in the younger years and in the early stages of chronic disease, the clinical findings are few and seemingly unrelated. Clearly, the optimal point at which to interrupt the pattern is early during the amorphous period. Though the evidence at this stage is subtle and the changes can only be minimal, the evidence reported here is that it is possible.

Third, of the numerous possible core problems, some are more and others less of a familial nature. While alcohol may be an issue in the parents, it usually does not involve the children until the late teens. In the case of tobacco, the children may become part of the total family problem somewhat earlier. Surely, coffee and tea may be introduced to the youngsters at an even earlier period of life. The problem of pollution, food preservatives and like factors are family affairs from the moment the family is conceived. However, some of the factors are societal in origin and will only be altered by society in the form of legislation. The one item which is always a family affair and which is

correctable at the family level is the diet. It is for this reason that the findings described in this report are of particular significance in the development of a family philosophy toward health and disease.

### Summary

There is no question but that genetic factors influence health and disease. However, it seems likely that genetic variables are not as overriding as previously held. Also, it is possible that there are environment challenges which can mask or trigger a genetic substrate. Parenthetical mention should be made that the correction of genetic problems is presently limited. Finally, there is reasonable evidence that the environment plays a role at every level investigated in the sphere of man. Examples have been provided in this report of parallelisms in the clinical picture, the biochemical pattern, the enzyme configuration, and at the dietary level. The fact that the environment is all-important is shown by the fact that statistically significant correlations were noted in married couples who are surely not genetically linked.

The implications in mass-testing programs are clear. The data suggest that therapy should be suggested at the family level and in areas in which the family can comfortably cooperate. Diet and physical activity are prime examples. Clearly, what the family unit eats is generally what the housekeeper prepares. By the same token, physical activity, such as walking, can easily be taught as a family philosophy.

The real rationalization for genetics today is that it is a convenient hypothesis. In the words of Doctor Denis P. Burkitt:

"People love genetics as an explanation of disease. If a disease is said to be genetic, you don't have to do anything about it. However, if a disease has an environmental cause, the individual, whether the patient or clinician, has a responsibility for making the change or changes to eliminate or control the disease."





Figure Thirteen. Doctor Jacques M. May adds..."the second (the celluloid doll) would scar..."



Figure Fourteen. And Doctor Jacques M. May concludes "and the third (the steel doll) would emit a pleasant musical sound."

In the final analysis, whether one remains well or succumbs to illness depends upon the environment, often referred to as the seed, and the organism's ability to withstand the environmental stressors often referred to as the soil, constitution, predisposition, host resistance and host susceptibility. A study of the family unit reveals that there are resistance factors, pluses, and susceptibility factors, minuses, which apply to all of the members of the family. Many of these pluses and minuses are relatively simple to identify and can be altered easily and significantly to some degree thus effecting changes in several individuals at the very same time. Hence, by altering the environment, it is also possible to modify host state. Of the many who have addressed themselves to this ecosystem, none has expressed it more eloquently than Doctor Jacques May of the American Geographical Society when he said:

"It is as though I had on a table three dolls, one of glass, another of celluloid, and a third of steel (Figure Eleven), and I chose to hit the three dolls with a hammer, using equal strength. The first doll would break (Figure Twelve), the second would scar (Figure Thirteen), and the third would emit a pleasant musical sound (Figure Fourteen)." ●

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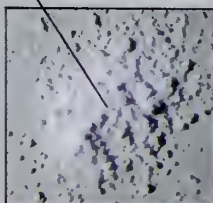


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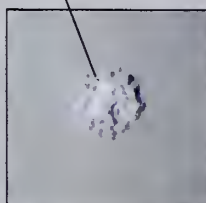
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**References:** 1. Goodman, L.S., and Gilman, A., eds.: The Pharmacological Basis of Therapeutics, Fifth Edition, New York, The Macmillan Company, 1975 (a) p. 335, (b) p. 336, (c) p. 344 2. Eden, A.M.: Am. J. Dis. Child. 114:284-287 (Sept.) 1967. 3. Mintz, A.A.: J. Ky. Acad. Gen. Pract. 5:26-31 (Jan.) 1959. 4. Colgan, M.T., and Mintz, A.A.: J. Pediatr. 50:552-555 (May) 1957. 5. Saunders, D.C.: Practitioner 183:335-338 (Sept.) 1959. 6. Reuter, S.H., and Montgomery, W.W.: Arch. Otolaryngol. 80:214-217 (Aug.) 1964 © McN 1977

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a public-private approach

# Medical help for the crossroads community

Richard O. Rutland, Jr., M.D.\*

In a January, 1972, *Journal of the American Medical Association* editorial entitled "Problems Are For Solving," then AMA president Walter Bornemeier, M.D., listed the following problems besetting the medical profession: "... the number of doctors, in many areas no doctor; the supply of family physicians - only 22% of doctors are generalists, mostly in the older age group; maldistribution - even the rural rich and many affluent neighborhoods face scarcities; the disproportion between specialty training programs, medical graduates, and community needs."

In suggesting solutions to these many problems, Dr. Bornemeier did not overlook the most rural of communities, the crossroads community. He recommended the formation of centrally located medical groups, perhaps in county seats, with satellite clinics in surrounding smaller towns to

which the group physicians would go on a regular basis.

Physicians in Fayette County, long familiar with the problems which Dr. Bornemeier listed, felt challenged by his words. Already grouped together in a thirty-five year old clinic, they had the beginnings of the rural health system he envisioned. However, in 1972 the day to day care of Fayette County's 16,000 people posed more of a challenge than the four of them were able to meet with sufficient time and energy left over for such innovation.

But events since the early 1970's have afforded them a unique opportunity to offer medical help to one such crossroads community. The public's demand for more and better health care; the Alabama state legislature's response making possible the development of family practice training programs within the state; the philosophy of Dean William Willard of the University's College of Community Health Sciences for developing rural health teams - all helped to provide this opportunity.

\*Practicing family physician, McNease Clinic, Fayette, Alabama; Clinical Assistant Professor, College of Community Health Sciences, University of Alabama, Tuscaloosa, Alabama.

# Help for the crossroads community

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Walter C. Bornemeier, M.D.,  
former president of the  
American Medical Association



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## the problem

One long term resident of Berry, Alabama said in 1972 that the town had "always" had a population of six hundred people. And for about as long as anyone there could remember Berry had been economically and generally depressed. It's last physician, Dr. John Scrivner, retired from the practice of medicine in 1972 because of poor health. He had given fifty-eight years of dedicated service to Berry and the surrounding area. When he retired there was no one to take his place, a familiar and poignant story in hundreds of communities over the country.

But a number of good things began happening to Berry. A major coal mining operation got underway employing four hundred miners with the assurance of continuing mining activity for at least twenty-five years. Local effort, with government assistance, brought public housing, a water system, and other much needed assistance. A new spirit began sweeping over the little town; long time residents and newcomers alike have been caught up in it.

## a solution

One of the new citizens, a young minister, Reverend Byron White, had previously lived in Tuscaloosa. There he learned of the University's family practice teaching program. Berry, some 20 miles from Fayette and 30 miles from Tuscaloosa, seemed to him a deserving and logical recipient of the medical care which the University promised to bring to rural Alabama. He also learned of the established relationship between the College of Community Health Sciences and the medical profession of Fayette. ("One Rural Community's Involvement in Family Practice Education," *Journal of the Medical Association of the State of Alabama*, September 1975 - Vol. 45, No. 3)

Reverend White served as a catalyst to focus the energy and resources of Berry citizens, the College of Community Health Sciences and the physicians of McNease Clinic at Fayette on Berry medical needs. On October 22, 1975, the first public meeting was held with representatives of all concerned parties in attendance. Townspeople listened to the College's Associate Dean Douglas Scutchfield describe potential sources of assistance and then voted to try to capitalize on whatever help was available nearest home rather than to look for outside assistance such as that offered by the National Health Service Corps. Since Berry fell within what might be considered their area of responsibility, McNease Clinic personnel promised to assist to whatever degree the Clinic's limited manpower would permit. And the College pledged expertise in planning efforts and back-up in medical manpower if this proved practicable. At the original meeting a medical clinic board was elected by Berry citizens and the project was off to a good start.

A crucial early consideration concerned the precise relationship of the three participating groups. The feasibility of a Tuscaloosa regional program including Fayette and neighboring rural counties, for which government funding would be sought, was seriously considered. McNease Clinic physicians were concerned about the potential complexities of such a program, the possible loss of their group's identity within such a conglomerate with central records, billing and control. Instead, McNease Clinic offered to assume the responsibility for providing professional care within its capacity to do so using its own personnel, records and billing system. The Berry Medical Clinic Board agreed to provide physical facilities, most of the equipment and supplies (for which McNease Clinic would pay reasonable rental) and continuing rapport with the local citizenry. The College agreed to serve in a limited consultative role and to provide continuing physician support, in keeping with College philosophy that local private physicians should assume primary responsibility for medical care in their own region whenever possible.

The matter of a clinic site was settled when the Scrivner family volunteered the use of Dr. Scrivner's old office building which for lack of use over several years was in disrepair. Fortunately, in Reverend White's Berry parish congregation there were excellent carpenters who, along with other Berry citizens all of whom volunteered their time and effort, had the old building sparkling in a few weeks. Through the combined efforts of the townspeople and McNease Clinic personnel, the building was furnished and equipped in short order.

As always with such things a major hurdle was the raising of money. Berry pride and sense of desperation prevailed. Debentures were sold. Vol-





Dedication day for Berry Medical Clinic (pictured above), previously the office of Dr. John Scrivner. From left to right, Mr. Frank Hellike of Republic Steel presenting check to Rev. Byron White and Dr. Peter Peacock. Also present were Drs. Douglas Scutchfield and Richard O. Rutland, Jr.

untary contributions were made. Reverend White's church conference provided \$1,500 for a feasibility study. The largest contribution was that of Republic Steel for \$25,000; those responsible for the growing mining industry of the little town could appreciate the availability of medical care.

As Byron White represented a catalyst for the entire program, Dr. Peter Peacock served this role for the McNease Clinic. Dr. Peacock is one of Alabama's most remarkable physicians ever. Having gained an international reputation as a medical teacher, researcher, and administrator in the fields of epidemiology and public health, he decided in his middle professional years to return to his first love of small town general practice and joined McNease Clinic November 1, 1975. He soon recognized the potential of a program such as that proposed for Berry. Whereas the senior members of the group had given some thought to such a project for a number of years but had become mired in their own procrastination, Dr. Peacock announced one day that by the following Tuesday he should probably be able to open the clinic. And so he did — on July 6, 1976. Official dedication ceremonies for the Berry Medical Clinic were held on Sunday, July 11, 1976.

From Fayette, Dr. Peacock brought his secretary-receptionist and nurse who along with a young Berry housewife, taught simple laboratory procedures by technicians in Fayette, constituted his medical team. They were received by the people of Berry with enthusiasm from the outset and this enthusiasm has continued. Consequently,

on October 1, 1976, the author began seeing patients on Saturdays and he, too, has been well received.

To a great degree their being able to go to Berry was made possible by the University's ability to assign family practice residents, for their mandatory rural rotation, to Fayette County on an almost uninterrupted basis. These excellent young physicians have managed to take up the slack back in Fayette while gaining valuable training and experience in the small and smallest towns of Dr. Bornemeier's rural health system.

## evaluation

The evolution of the Berry Medical Clinic has of course not been without trial and frustration. The people of Berry, too accustomed to disappointment, have needed continuing reassurance. Fayette's physicians have had many reservations because of the novelty of the program and because of their own past disappointments with certain facets of the Berry community. And the College of Community Health Sciences has lived up to its commitments only with some difficulty because of its many other responsibilities.

It is premature to write with conviction in terms of success or failure or future goals of the project. But it would seem reasonably conservative to state that: the program has grown steadily and solidly so that by the end of six months operation more than five hundred families were registered at the clinic; the people of Berry are genuinely pleased

## Help for the crossroads community

Scene of downtown Berry. The old well, recently restored and designated a state landmark, is on the right. General mercantile store in the background, first opened in 1891, boasts, "We Handle Most Everything From A Cradle To A Coffin."



and grateful for this resource, another in a series of morale builders for the little town; and the three participating groups are sufficiently encouraged to look ahead to future developments. And indeed much remains to be done if the town is to receive the medical care it needs and deserves.

### summary

The Berry project represents a unique cooperative venture on the part of the citizens of a crossroads community, a family practice teaching program, and a private medical group to bring medical care to a rural area of great need. Though much remains to be done success to date indicates a soundness to the early thinking of American medical leaders Bornemeier and Willard. Because of the efforts and vision of such men as these, the future for many areas of medical need in our country appears hopeful. ●

### BRIEF SUMMARY OF PRESCRIBING INFORMATION

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**Actions.** Antiminth (pyrantel pamoate) has demonstrated anthelmintic activity against *Enterobius vermicularis* (pinworm) and *Ascaris lumbricoides* (roundworm). The anthelmintic action is probably due to the neuromuscular blocking property of the drug.

Antiminth is partially absorbed after an oral dose. Plasma levels of unchanged drug are low. Peak levels (0.05-0.13  $\mu\text{g/ml}$ ) are reached in 1-3 hours. Quantities greater than 50% of administered drug are excreted in feces as the unchanged form, whereas only 7% or less of the dose is found in urine as the unchanged form of the drug and its metabolites.

**Indications.** For the treatment of ascariasis (roundworm infection) and enterobiasis (pinworm infection).

**Warnings. Usage in Pregnancy:** Reproduction studies have been performed in animals and there was no evidence of propensity for harm to the fetus. The relevance to the human is not known.

There is no experience in pregnant women who have received this drug.

The drug has not been extensively studied in children under two years; therefore, in the treatment of children under the age of two years, the relative benefit/risk should be considered.

**Precautions:** Minor transient elevations of SGOT have occurred in a small percentage of patients. Therefore, this drug should be used with caution in patients with preexisting liver dysfunction.

**Adverse Reactions.** The most frequently encountered adverse reactions are related to the gastrointestinal system.

Gastrointestinal and hepatic reactions: anorexia, nausea, vomiting, gastralgia, abdominal cramps, diarrhea and tenesmus, transient elevation of SGOT.

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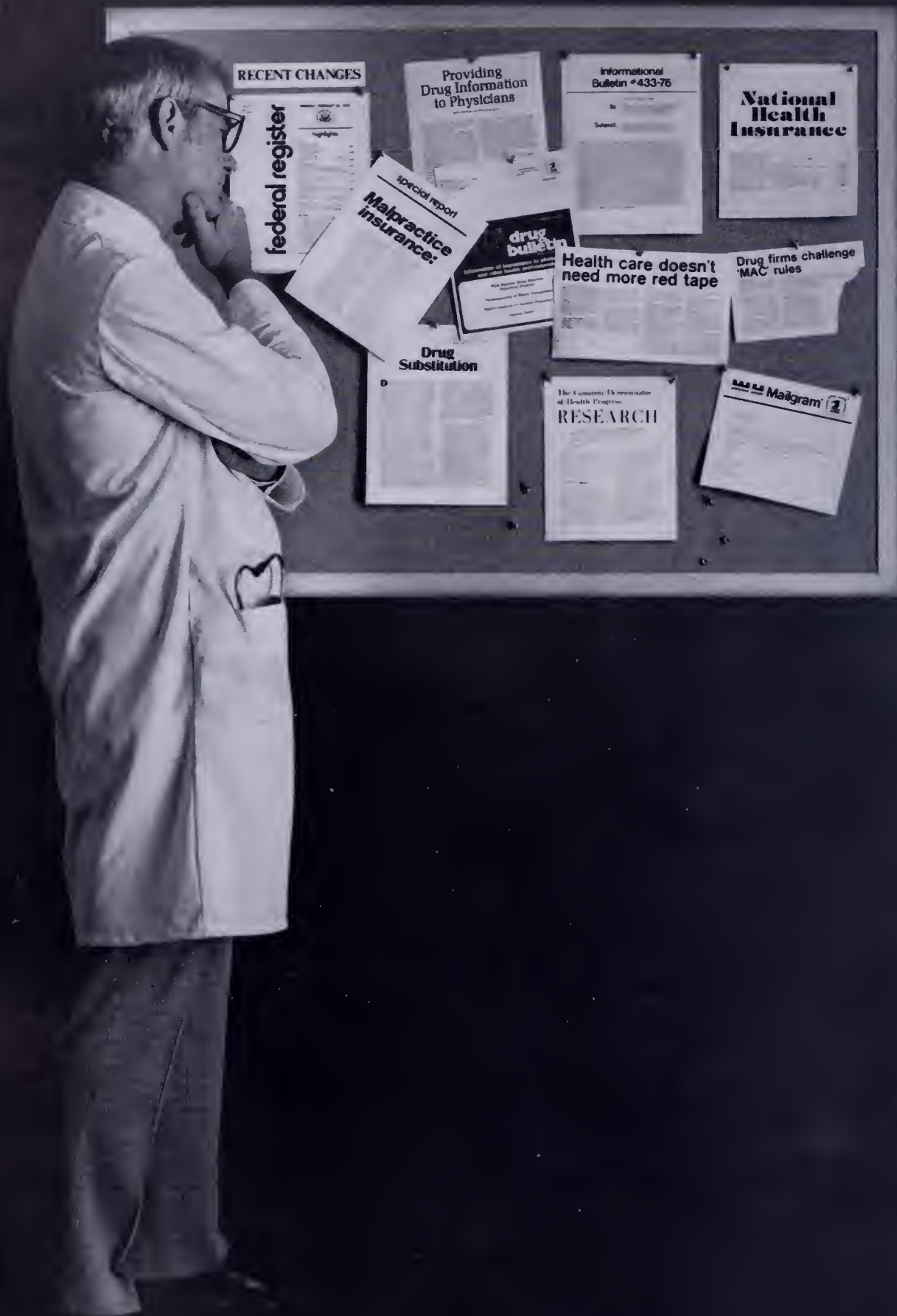
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# THERE ARE A LOT OF PEOPLE GETTING BETWEEN YOU AND YOUR PATIENT.

Medicine today is in the spotlight, subjected to all kinds of scrutiny. Your control over patient therapy is being monitored, judged and occasionally abrogated, sometimes by unknown third parties.

The worry is that in the wake of this focus, the relationship between you and your patient will be weakened, without offsetting benefits. Consider three examples:

**Drug substitution** In most states, pharmacy laws, regulations or professional custom stipulate that your non-generic prescriptions be filled with the precise products you prescribe. But in the last five years, a dozen or more State laws have been changed, permitting the pharmacist in most cases to select a product of the same generic drug to fill any prescription.

Ironically, this dilution of physician control has taken place against a background of growing evidence that purportedly equivalent drug products may be inequivalent, since neither present drug standards nor their enforcement are optimal. In fact, the FDA itself says it has not enforced the same standards for hundreds of "follow-on" products that it had applied to the original NDA approvals. Thus physician control over patient therapy is being eroded with a risk that patients may be exposed to drugs of uncertain quality.

The major advertised claim for substitution is reduced prescription prices for consumers. Yet no documentation of any significant savings has been produced.

**MAC** Maximum Allowable Cost, MAC for short, is a Federal regulation designed to cut the Government's drug bill by setting price ceilings for drugs dispensed to Medicare and Medicaid patients. Unless the prescriber certifies on the prescription that a particular product is medically necessary, the Government intends to pay only for the cost of the lowest-priced, purportedly-equivalent,

generally-available product. The effect of the program may be that elderly and indigent patients will be restricted to products which someone in Washington believes are priced right. Practicing doctors will have little to say about administration of the program, since Government will have absolute authority to make its choices stick.

**The drug lag** The future of drug and device research depends upon a scientific and regulatory environment that encourages therapeutic innovations. The American pharmaceutical industry annually is spending more than \$1 billion of its own funds and evaluating more than 1,200 investigational compounds in clinical research. Disease targets include cancer, atherosclerosis, viruses and central nervous system disorders, among others. But there is a major barrier to the flow of new drugs to your patients: The cost of the research is more than ten times what it was, per product, in 1962; and whereas governmental clearance of new drug applications took six months then, it commonly consumes two years now.

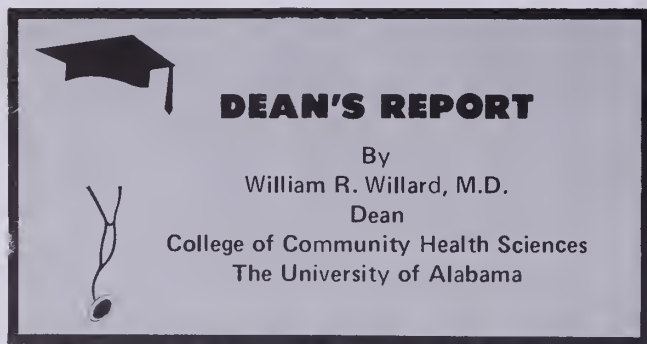
The FDA needs adequate time, of course, to consider data. But it is equally clear that the present approval process contributes to needless delay of needed therapy. That's why the increased efficiency of the drug approval process is vital to all our futures.

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## Have the ideals of

Many people seem to believe that the medical profession is too mercenary, that many students enter medicine for the prestige and money that they can earn; that the qualities of compassion, idealism, and service among physicians are at low ebb. We, in the profession, know that this is not generally true, although there obviously are a few exceptions. It is refreshing to see the idealism and dedication to service exhibited by the coming generation of physicians, the medical students.

We have an excellent example of this among the small group of medical students at the Tuscaloosa campus of the College of Community Health Sciences. Largely through the efforts of one of the students, Mr. Gene Holm, and his colleagues, a clinic for the indigent and medically underserved people in West Tuscaloosa, largely black, opened its doors early this year. For over two years, Gene had promoted the idea of a clinic similar to one in which he worked when he was attending the University of Nevada.

He discussed the idea which he and the students had developed with Dr. Roland Ficken, Director of Medical Student Affairs for the College of Community Health Sciences. Together they enlisted the help of the District Health Officer, Dr. Charles Konigsberg, and the Director of the West Alabama Health Council, Dr. Elizabeth Cleino, in obtaining the names of leading citizens on the west side of town who were broadly representative of the group needing services, to form a committee to sponsor and help organize the clinic.

A letter was sent to community physicians explaining the clinic and asking if they were willing to serve as attending physicians on a rotating schedule. Sixteen Tuscaloosa physicians in private practice expressed an interest in serving at the clinic, and virtually all of the residents and faculty of the College were willing to give time also.

Then there was the problem of finding a suitable location for the clinic, and fortunately, the Salvation Army donated the use of a building which they owned in this part of the city. The Family Practice Center of the College of Community Health Sciences loaned some basic equipment, members of the committee and the community donated money to buy supplies, and drug companies donated medications.

Thus, after two years of groundwork and planning, on February 17 the Westside Community Center was ready for business. The clinic is now open on Thursdays from 6-10 p.m. and is staffed by 35 volunteers, including medical,

nursing, law, health care management, nutrition, social work, pharmacy, and medical technology students, as well as lay volunteers from the community. Of course, not all of these people are needed each night, but all are participating. With this staff, it is possible to offer medical care, nutritional advice, and professional counseling. When hospital or other more sophisticated care is needed, efforts are made by the volunteer staff to secure it for the patient, if possible. All staff members, including the physicians, serve without pay.

The students in the clinic are learning to work with each other and to see what other professionals can contribute to the health care of patients. It is a good example of the team approach encompassing several professional disciplines, as well as lay volunteers from the community. As Gene Holm says, "In the 'real world' there is not always the best of rapport among health professionals, simply because they do not know enough about each other's role. Students working at the clinic are obtaining insight into what others can do that a doctor may not be so well trained to do himself."

Since it began, the clinic has relied on word-of-mouth and churches to remind the people of the area of the services available. No advertising has been done. One of the committee members, Miss Maude Whatley, a retired elementary school principal, has enlisted the help of several churches in obtaining the names of people in need of medical attention. Two ministers in the community have volunteered to provide transportation for people who have no other way to get to the clinic.

Of course, the student and community representatives on the committee realize that the clinic can never meet the total medical needs of the community as it is now operating. However, it is a starting point around which hopefully something larger can be established. Since the clinic is supported entirely from donations from the community and churches and the services of volunteers, more adequate funding will be needed if the clinic is to satisfy the real needs of the indigent and medically indigent in that area for health care. The students and the local committee are investigating ways in which the clinic may be more adequately funded.

Gene Holm says, "There is a lot of good feeling flowing among the students who are responsible for making the clinic a reality. It is an accomplishment, not only for the students, but also for the people."



## service been lost?



Charlotte Walker, Druid City Hospital student nurse from Fayette, checks the blood pressure of Ms. Annie Ruth Simpson, as UA medical student Gene Holm consults.

Miss Whatley, who hasn't missed a Thursday night at the clinic since it opened, says, "Those young doctors at the University and the practicing physicians of the community who are helping us are such fine and kind people. The patients are happy with their treatment, and we've been able to offer a place to go for so many people who, until now, really didn't have any place to obtain medical care."

Is this small project, promoted and initiated by students, a truly educational experience? I think it is. The students from all disciplines have learned, not only some clinical medicine, but they have learned to work together as a team. We often preach teamwork, but too often, we fail to exemplify it to students. More than this, the students have learned to work with lay citizens in the community, to organize a program, and to achieve a common goal of better health services.

Are the ideals of service dead among the members of the medical profession? Obviously not, neither among the private practitioners nor the rising generation of students, as this small project demonstrates. ●

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### new members

#### BULLOCK COUNTY

REICHEL, Michael Eugene, b 46, mc Maryland 74, recip. Maryland 74, P. O. Drawer 511, Union Springs 36089. Pd.

#### CALHOUN COUNTY

HAWLEY, Richard Charles, b 46, mc Upstate Medical Center, Syracuse 72, recip. NBME 73 334-A Avery Dr., Ft. McClellan 36201. I.

MONAHAM, Paul Phillip, b 48, mc Minnesota 74, recip. NBME 75, 4143 Via, Apt. 313-A Marina Del Ray, California 90291.

SCHUBERT, Robert Charles, b 46, mc Minnesota 71, recip. Minnesota 72, 3405-A Littlebrandt Dr., Ft. McClellan 36205. DR.

#### CULLMAN COUNTY

PEINHARDT, Wm. Frederick, b 46, mc Alabama 73, recip. NBME 74, 404 Arnold St. N.E., Cullman 35055.

#### DALLAS COUNTY

WELLS, Thomas Geroge, b 42, mc Alabama 69, recip. NBME 70, 1013 Medical Center Parkway, Selma 36701.

#### JEFFERSON COUNTY

BREAM, Peter Reynolds, b 46, mc North Carolina 72, recip. North Carolina 76, 619 S. 19th St., Birmingham 3523. C.

CURRY, George Clyde, b 37, mc Texas 62, recip. Texas 76, 619 S. 19th St., Birmingham 3523. C.

ELLIOTT, Larry Paul, b 31, mc Tennessee 57, recip. Mississippi 76, 619 S. 19th St., Birmingham 3523. C.

FERGUSON, Edward Charles, b 21, mc Marquette 51, recip. Wisconsin 76, 7916 Second Ave. S., Birmingham 35206.

HEMSTREET, Mary Pat Babiarz, b 42, mc Temple 68, recip. NBME 76, 1601 6th Ave. S., Birmingham 35205. PH. MINOKADEH, Said, b 41, mc Tehran 66, Limited License 76, UAB Station, Birmingham 35294. Anes.

NASSRIAN, Ahmad, b 44, mc Pahlavi 72, Limited License 76, UAB Station, Birmingham 35294. Anes.

RIPPY, Girard Crawford, Jr. b 30, mc Duke 54, recip. North Carolina 76, Lloyd Noland Hospital, Fairfield 35064. OB-GYN.

SCHRANK, Joel Palmer, b 35, mc Case Western Reserve 64, recip. Virginia 75, 1919 7th Ave. S., Birmingham 35294. I.

SLAGEL, Wylie Aaron, b 38, mc Kentucky 68, recip. Kentucky 68, 1608 13th Ave. S., Birmingham 35205. PH.

TIMBERLAKE, Perry, b 47, mc Alabama 73, sb 76, 1221 Waters St., Brighton 35020.

WILLIAMS, Robert Carson, b 44, mc Tennessee 68, recip. Tennessee 76, 7901 1st Ave. S., Birmingham 35206. GE.

#### LEE COUNTY

HERRING, James Richard, b 36, mc Alabama 61, sb 63, 121 N. 20th St., Opelika 36801. I.

SMITH T. Joanne, b 35, mc Johns Hopkins 60, recip. Georgia 61, 121 North 20th St., Opelika 36801. I.

#### MACON COUNTY

ALLMAN, Marian Isabel, b 46, mc MeHarry 70, recip. Georgia 71, 166 Pinetree Dr., Montgomery, 36617.

#### MOBILE COUNTY

CARPENTER, Dalton R., b 46, mc Alabama 73, recip. NBME 74, 2451 Fillingim St., Mobile 36617. OrS.

COMPTON, Anne Elizabeth, b 49, mc Alabama 73, Limited License 76, Searcy Hospital, Mt. Vernon 36560. P.

DAVIS, Stephen Alvin, b 46, mc Alabama 72, recip. Virginia 75, 2451 Fillingim St., Mobile 36617. I.

DETORRE, James Bowam Williams, b 49, mc North Carolina 76, Limited License 76, 2451 Fillingim St., Mobile 36617. ObG.

DUGGAR, Roger Sherman, b 47, mc Alabama 75, recip. NBME 75, 2451 Fillingim St., Mobile 36617. ObG.

DUGGER, David Ellis, b 50, mc Vanderbilt 76, Limited License 76, 2451 Fillingim St., Mobile 36617. ObG.

EDWARDS, James Randall, b 47, mc Florida 73, recip. NBME 74, 2451 Fillingim St., Mobile 36617. I.

FERGUSON, Margaret Ann, b 48, mc Tulane 73, recip. LA 74, 2451 Fillingim St., Mobile 36617. I.

GEWIN, William Charles, b 48, mc LSU 74, recip. LA 75, 2451 Fillingim St., Mobile 36617. I.

HART, Kirby Lamar, Jr., b 48, mc Alabama 74, recip. NBME 75, 2451 Fillingim St., Mobile 36617. ObG.

HERMANN, Cecelia Marie, b 51, mc Alabama 76, Limited License 76, 2451 Fillingim St., Mobile 36617. I.

HESTER, Gary Lee, b 51, mc Alabama 76, Limited License 76, 2451 Fillingim St., Mobile 36617. S.

HOOD, Danny Trammel, b 51, mc Alabama 76, Limited License 76, 2451 Fillingim St., Mobile 36617. I.

KING, Michael Lewis, b 49, mc Mississippi 75, Limited License 76, 2451 Fillingim St., Mobile 36617. S.

KIRKPATRICK, Michael Bruce, b 48, mc Alabama 74, recip. NBME 75, 2451 Fillingim St., Mobile 36617. I.

LAMON, James Clyde, b 50, mc Georgia 76, Limited License 76, 2451 Fillingim St., Mobile 36617. I.

LIGHTFOOT, William Malcolm, b 48, mc Alabama 74, recip. NBME 75, 2451 Fillingim St., Mobile 36617. S.

LORINO, Gaeton Don, b 49, mc Alabama 76, Limited License 76, 2451 Fillingim St., Mobile 36617.

RUBINO, Joseph Michael, b 49, mc Boston 76, Limited License 76, 2451 Fillingim St., Mobile 36617.

ULRICH, Guy Richard, b 50, mc Florida 76, Limited License 76, 2451 Fillingim St., Mobile 36617. I.

### transferred

#### ELMORE COUNTY

COOK, Ottis Deroy, P. O. Box 2000, Wetumpka 36092. From Montgomery County Medical Society.

#### LEE COUNTY

HEIDPRIEM, Robert William, P. O. Box 268, Alexander City 35010. From Tallapoosa County Medical Society.

### deceased

#### ETOWAH COUNTY

ADKINS, Hezekiah, 12/1/76.

### address changes

#### COVINGTON COUNTY

DANIEL, Sara Jo, present Andalusia to P. O. Box 411, Montrose 36559.



#### **CULLMAN COUNTY**

DAVIS, Patrick W., present Cullman to 404 Arnold St. N.E. Cullman, 35055.

DUNN, John R., present Cullman to 307 Arnold St. N.E. Cullman 35055.

#### **DALLAS COUNTY**

MOORE, E. J., Jr., present Selma to 542 Merrifield Dr., Selma 36701.

#### **JEFFERSON COUNTY**

BARTHOLD, David R., present Bessemer to 924 Medical Center Dr., Bessemer 35020.

BEARDEN, Winford E., present Birmingham to 801 Princeton Ave. S.W., Birmingham 35211.

BRADFORD, Depew E., present Birmingham to 1630 4th Ave., North, Birmingham 35203.

BROWN, Hunter M., present Birmingham to 800 Montclair Road, Suite 303, Birmingham 35213.

CANNON, Joseph M., present Birmingham to 209 Killough Drive, Birmingham 35213.

COLE, G. William, present Birmingham to Division of Clinical Pathology, UAB Station, Birmingham 35294.

CHRISTOPHER, Craig Huron, present Birmingham to 4972 Spring Rock Rd., Birmingham 35223.

CURTIS, Charles A., present Birmingham to Hillcrest General Hospital, Department of Pathology, Box 2767, Silver City, New Mexico 88061.

deSOTO, Teresa G., present Birmingham to 912 Medical Center, Bessemer 35020.

EISENHARDT, Otto F., F., present Birmingham to 6900 6th Ave., South, Birmingham 35212.

FELGNER, Charles F., present Birmingham to 1717 11th Ave. South, Birmingham 35205.

GARNER, Mabry E., present Fairfield to U. S. Steel Corporation, P. O. Box 599, (J-33), Fairfield 36064.

GLASGOW, R. David, present Birmingham to 1957 Hoover Court, Suite 100, Birmingham 35226.

HATHAWAY, Beulah M., present Birmingham to 4727 Old Looney Mill Road, Birmingham 35243.

JAMES, Reese E., present Birmingham

to 325 Culloden Way, Birmingham 35234.

JANDER, H. Peter, present Birmingham to 619 South 19th Street, Birmingham 3523.

JOHNSON, Leslie Donald, present Birmingham to 4016 Little Branch Road, Birmingham 35234.

KENNEDY, Hughes, Jr., present Birmingham to 3118 Carlisle Road, Birmingham 35213.

KIM, Machiko K., present Birmingham to 1516 6th Avenue, South, Birmingham 35233.

LEVENE, Ralph Z., present Birmingham to 2018 Brookwood Medical Ctr., Dr., Suite 209, Birmingham 35209.

MARTIN, Lawrence M., present Birmingham to 6900 6th Avenue, S. P. O. Box 2852-A, Birmingham 35212.

MEADOWS, James A., Jr., present Birmingham to 1717 11th Avenue, S., Birmingham 35205.

MORENO, Hernan, present Birmingham to 1529 North 25th St., Birmingham 35234.

PALMER, Stephen D., present Birmingham to 1957 Hoover Court, Birmingham 35226.

POLHILL, Rutherford B., Jr., present Birmingham to Mayfair Medical Group, 3401 Montgomery Hwy., Birmingham 35209.

PRINCE, Daniel Scott, present Birmingham to 1717 11th Avenue, S. Birmingham 35205.

PUZON, Benjamin Q., present Birmingham to 924 South 18th Street, Birmingham 35205.

RIEDERER, Robert E., present Bessemer to 1407 Avon Circle, Birmingham 35213.

ROY, Barbara J., present Birmingham to 7901 1st Avenue, South, Suite 206, Birmingham 35206.

RUTSKY, Edwin A., present Birmingham to 624 Zeigler Building UAB Station, Birmingham 35294.

SHAW, June F., present Birmingham to Division of Clinical Pathology, UAB Station, Birmingham 35294.

SPIRA, Victor, present Birmingham to 909 City National Bank Bldg. Birmingham 35203.

POWELL, David F., present Birmingham

to 1529 North 25th Street, Norwood Clinic, Birmingham 35234.

TRUCKS, J. Frank, present Birmingham to 3830 Redmont Road, Birmingham 35213.

DEL VECCHIO, Pasquale, present Birmingham to 2018 Brookwood Medical Ctr. Dr., Suite 303, Birmingham 35209.

WEIL, Warren B., present Birmingham to 800 Montclair Road, Birmingham 35213.

WHITE, Dewey A., Jr., present Birmingham to 1909 8th Avenue, S., Birmingham 35294.

WILLIAMS, Samuel D., present Birmingham to 1529 North 25th St., Birmingham 35234.

YOUNES, Henry J., present Birmingham to Department of Anesthesiology, UAB Station, Birmingham 35294.

#### **LAUDERDALE COUNTY**

STONECYPHER, William B., present Florence to 1850 W. Tannehill Dr., Florence 35630.

#### **LEE COUNTY**

HELLER, Edgar E., present Auburn to 3708 Foxford Circle, Tallahassee, Florida 32302.

#### **MOBILE COUNTY**

KIMBROUGH, Benjamin B., present Chickasaw to 1874 Pleasant Ave., Mobile, 36617.

#### **MONTGOMERY COUNTY**

ASHURST, Robert T., III, present Montgomery to P. O. Box 1141, Montgomery 36111.

BHUTA, Ishwar, present Montgomery to 1722 Pine Street, Suite 801, Montgomery 36106.

BOOZER, Thomas S., present Montgomery to 1722 Pine Street, Suite 805, Montgomery 36106.

HOLDING, Bruce F., Jr., present Montgomery to 2031 Normandie Dr., Montgomery 36111.

#### **MADISON COUNTY**

WILLICE, Robert L. present Huntsville to 806 Gallatin St., SW, Huntsville 35801. ●

# Think you know all about asthma?

Then you should know all about TEDRAL.  
It provides —

- ☐ rapid symptomatic relief, as well as prophylaxis
- ☐  $\beta$ -ADRENERGIC ACTION THAT RELAXES BRONCHIAL SMOOTH MUSCLE
- ☐  $\alpha$ -ADRENERGIC ACTION THAT REDUCES BRONCHIAL EDEMA AND SECRETIONS
- ☐ synergistic action of ephedrine and theophylline for effective and prolonged bronchodilation
- ☐ dosage forms to meet individual patient needs

For asthma management...

## **Tedral<sup>®</sup> / Tedral SA<sup>®</sup> / Tedral Elixir<sup>®</sup>**

Each tablet contains 130 mg theophylline, 24 mg ephedrine hydrochloride, and 8 mg phenobarbital

Each tablet contains 180 mg anhydrous theophylline (90 mg in the immediate release layer and 90 mg in the sustained release layer), 48 mg ephedrine hydrochloride (16 mg in the immediate release layer and 32 mg in the sustained release layer), and 25 mg phenobarbital in the immediate release layer.

Each 5 ml teaspoonful contains 32.5 mg theophylline, 6 mg ephedrine HCl, and 2 mg phenobarbital, the alcohol content is 15%.

### **SUSTAINED ACTION**



**WARNER/CHILCOTT**  
Division, Warner-Lambert Company  
Morris Plains, New Jersey 07950

T-GP-74-B/W



**TEDRAL®****TEDRAL® SA Sustained Action****TEDRAL® Elixir**

**CAUTION:** Federal law prohibits dispensing Tedral SA without prescription.

**Description.** Tedral: each tablet contains 130 mg theophylline, 24 mg ephedrine hydrochloride, and 8 mg phenobarbital.

Tedral SA: each tablet contains 180 mg anhydrous theophylline (90 mg in the immediate release layer and 90 mg in the sustained release layer); 48 mg ephedrine hydrochloride (16 mg in the immediate release layer and 32 mg in the sustained release layer); 25 mg phenobarbital in the immediate release layer.

Tedral Elixir: each 5 ml teaspoonful contains 32.5 mg theophylline, 6 mg ephedrine hydrochloride, and 2 mg phenobarbital; the alcohol content is 15%.

**Indications.** Tedral, Tedral SA, and Tedral Elixir are indicated for the symptomatic relief of bronchial asthma, asthmatic bronchitis, and other bronchospastic disorders. They may also be used prophylactically to abort or minimize asthmatic attacks and are of value in managing occasional, seasonal or perennial asthma.

Tedral SA (Sustained Action) offers the convenience of b.i.d. dosage.

Tedral Elixir is convenient for persons who may have difficulty in swallowing tablets.

These Tedral formulations are adjuncts in the total management of the asthmatic patient. Acute or severe asthmatic attacks may necessitate supplemental therapy with other drugs by inhalation or other parenteral routes.

**Contraindications.** Sensitivity to any of the ingredients; porphyria.

**Warnings.** Drowsiness may occur. PHENOBARBITAL MAY BE HABIT-FORMING.

**Precautions.** Use with caution in the presence of cardiovascular disease, severe hypertension, hyperthyroidism, prostatic hypertrophy, or glaucoma.

**Adverse Reactions.** Mild epigastric distress, palpitation, tremulousness, insomnia, difficulty of micturition, and CNS stimulation have been reported.

**Average Dosage.** *Prophylactic or Therapeutic.*

Tedral: *Adults*—One or two tablets every 4 hours. *Children*—(Over 60 lb) one-half the adult dose.

Tedral SA: *Adults*—One tablet on arising and one tablet 12 hours later. Tablets should not be chewed. *Children*—Not established for children under 12.

Tedral Elixir: *Note:* One teaspoonful is equivalent to one-quarter Tedral tablet. *Children*—One teaspoonful per 30 lb body weight, every 4-6 hours, unless prescribed otherwise by physician. Should be given to children under 2 years of age only with extreme caution. *Adults*—One to two tablespoonfuls every four hours.

**Supplied.** Tedral: White, uncoated scored tablets in bottles of 24 (N 0047-0230-24), 100 (N 0047-0230-51) and 1000 (N 0047-0230-60). Also in Unit Dose—package of 10 x 10 strips (N 0047-0230-11).

Tedral SA: Double-layered, uncoated, coral/mottled white tablets in bottles of 100 (N 0047-0231-51) and 1000 (N 0047-0231-60). Also in Unit Dose—package of 10 x 10 strips (N 0047-0231-11).

Tedral Elixir: Dark red and cherry-flavored in 474 ml (16 fl oz) bottles (N 0047-0242-16).

STORE BETWEEN 59° and 86°F (15° and 30°C).

Full information is available on request.

## HEMORRHOIDS TREATED SUCCESSFULLY BY SIMPLE, INEXPENSIVE TECHNIQUE

Hemorrhoids can be safely and effectively removed by ligation with rubber bands at a cost of \$175 instead of by conventional surgery at an average cost of \$1,400. Not only is the cost less, but the hospital stay of several days and the acute post-operative pain and discomfort is virtually eliminated, says John Bartizal, M.D., and P. A. Slosberg, M.D., of Loyola University, Chicago.

The Chicago doctors gave the technique a thorough test. Their report is a review of 670 patients who underwent 3,208 rubber band ligations for internal hemorrhoids. Mild to moderate discomfort occurred in 22 patients, while severe pain enough to limit activity occurred in only four patients. Slight bleeding was noted in 19 patients and severe bleeding in nine. Only two of these nine required hospitalization and further treatment.

"Rubber band ligation of hemorrhoids meets all the requirements of an acceptable alternative to hemorrhoidectomy, and considering convenience, comfort, and cost, it may well be a superior alternative," says Drs. Bartizal and Slosberg. ●

### BUREAU OF CLINICAL SERVICES

Thomas J. Chester, M.D., Acting Director

#### Current Morbidity Statistics

	1977		*E.E.
	February	March	March
Tuberculosis	53	50	94
Syphilis	19	24	28
Gonorrhea	1,854	1,913	1,089
Chancroid	0	0	0
Typhoid fever	1	0	0
Salmonella	18	12	17
Undulant fever	0	0	0
Shigella	5	6	8
Amebic dysentery	0	0	0
Scarlet fever & strep. throat	270	278	609
Diphtheria	0	0	0
Whooping cough	0	0	1
Meningitis	9	15	6
Tularemia	0	0	0
Tetanus	0	0	0
Poliomyelitis	0	0	0
Encephalitis	0	0	1
Smallpox	0	0	0
Measles	0	0	2
German measles	2	0	25
Chickenpox	325	226	105
Mumps	69	24	60
Hepatitis	30	47	41
Typhus fever	0	0	0
Rocky Mt. spotted fever	1	0	0
Malaria	0	0	0
Rheumatic fever	3	2	9
Rheumatic heart	7	1	23
Influenza	268	2,371	446
Pneumonia	271	601	539
Rabies—Human cases	0	0	0
Pos. animal heads	0	0	0

As reported by physicians and including deaths not reported as cases. \*E.E.—The estimated expectancy represents the median incidence of the past nine years.

## Auxiliary



### HEALTH THROUGH EDUCATION

care to preserve good quality care but to contain costs, feels that "the best answer is health education—better knowledge and especially better motivation applied to *personal* health decisions on diet, nutrition, tobacco, alcohol, exercise, and emotional stress."

Although many medical offices try to educate patients via verbal and written instructions, it is unfortunately too late for many of them. We see this in our office and do feel AMA pamphlets and others placed in our waiting room are read, but this is not enough.

In order to insure the right direction and to maintain the close working relationship with the association, we met with MASA officers and staff. We were cordially received and a joint project was approved. We anticipate joining MASA with the State Board of Education to produce a TV spot to promote adequate health education in our schools from kindergarten through twelfth grade. Presently there is fragmented or "crisis" health education (VD, Drug Abuse) in certain areas, but no consistent approach to aid students to make informed decisions affecting their health. Alabama educators need public awareness, concern, and funding to get the best health education curricula taught by qualified teachers. We hope to be the catalysts.

In Alabama, we have accomplished much but we need members. I appeal to you to encourage your spouse to join auxiliary. Though primarily focusing upon "Health Through Education" this year, we can offer worthwhile, interesting involvement regardless of your spouses' talents. Perhaps if you hear "The Auxiliary doesn't do anything," your mate should become better informed by joining us. I feel strongly that unified auxiliary membership, communication and correct information will enable us to intelligently promote health education and all of our programs for the cause of medicine. Below is a form for membership. Please use it and as a concerned citizen and parent, join us in our "Health Through Education."

*Helene*

Mrs. John S. Taylor  
President

At the AMA Leadership Conference, a British physician-panelist on British health care delivery spotted my name badge with "Auxiliary" on it. "We have nothing of the sort in Great Britain," he said. "Primarily, what do you do?" I replied that I was the spouse of a physician AMA member, mainly dedicated to keeping him healthy and happy so that he could render the best quality of medical care.

Before I could continue, a physician nearby commented that I was too modest. He related that the Auxiliary nationally through AMA-ERF raised over one million dollars last year for medical education; through legislative awareness and PAC, we work to enlighten all voters, especially our spouses, who, many times are too busy to be well-informed in politics. Further, that we support health education for all through community action, thereby improving relations between the medical community and outside organizations. I felt good because we *do* assist AMA programs to ultimately improve the health and quality of life for people.

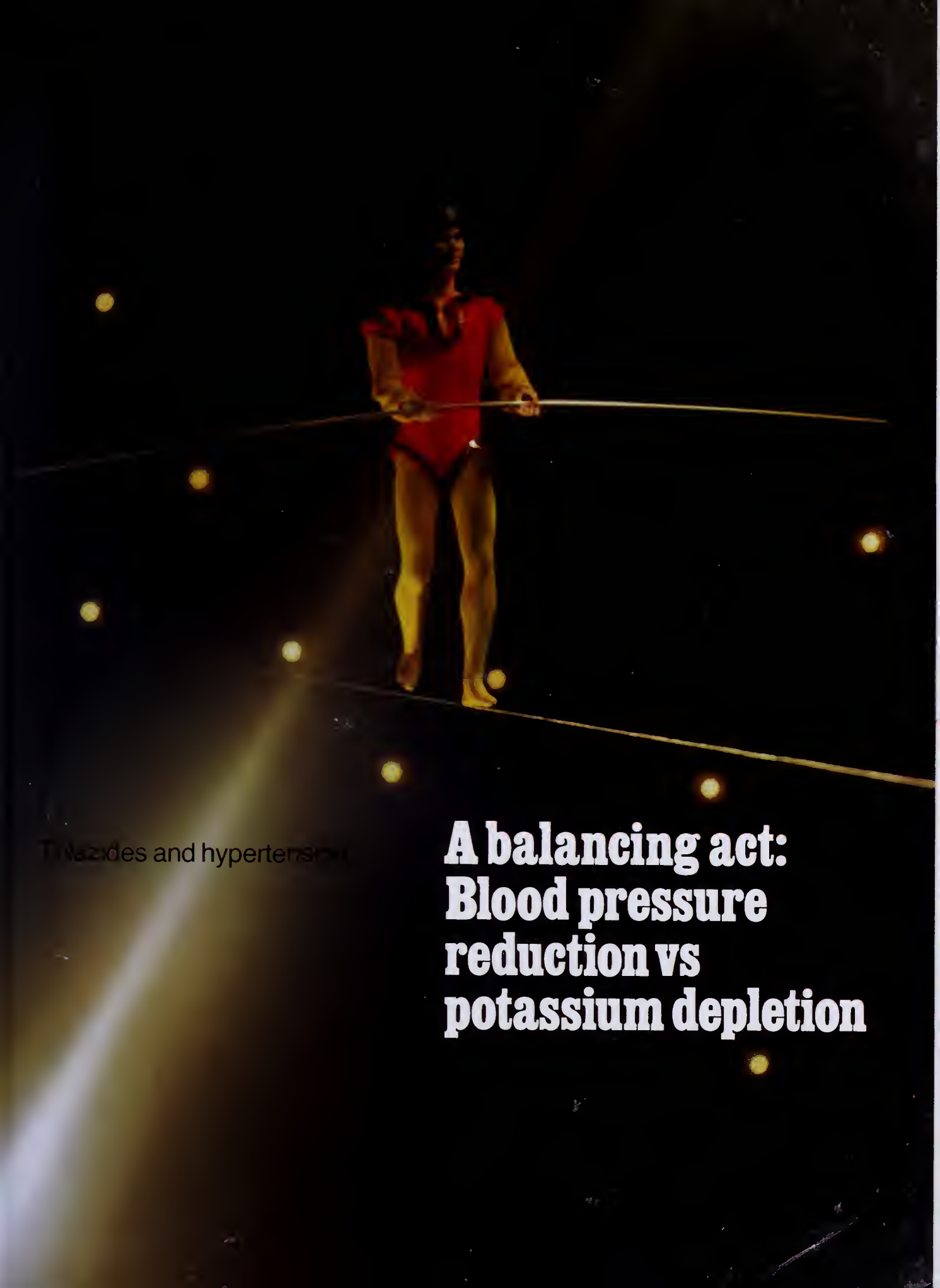
The British physician said he wished he had an auxiliary to aid in educating his countrymen because "health education is a failure." He added that doctors should try to maintain the present method of caring for patients in the United States. He urged that we continue to get the true story of our good health care to the public.

It has been said that society has abdicated responsibility for its own health since the advent of "miracle" treatments and drugs, leaving it to the professionals. But demand for the highest quality of care has brought escalated costs, therefore discontnet. Health education has great importance when we realize that consumer groups are now pushing toward involvement in their maintenance. Health education is no panacea, but might be one way to diminish discontent and cost. Dr. Max Parrott, Past President, AMA, discussing which way the American public will go in health

Mail to: Mrs. John S. Taylor, 2555 South Delwood Dr., Mobile, Al 36606 or Mrs. Eugene Bradley, Centre, 35960.  
I wish to join the AMA Auxiliary, Auxiliary to the Medical Association of The State of Alabama. Please send me information.

NAME \_\_\_\_\_ ADDRESS \_\_\_\_\_  
CITY \_\_\_\_\_ COUNTY \_\_\_\_\_





Thiazides and hypertension

# **A balancing act: Blood pressure reduction vs potassium depletion**

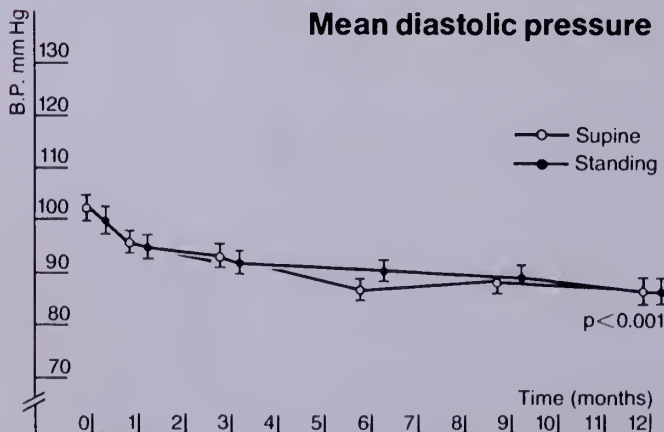
From a 1-year study of 18 patients  
with mild uncomplicated  
hypertension published in The Lancet\*

Once a day

# Naturetin®

Bendro-  
flumethiazide  
Tablets N.F.

## Diastolic blood pressure down 12-15%



"The mean pretreatment blood pressure was 170/103mmHg (supine) and 166/100mmHg (standing). Diastolic pressure continued to fall over the first 6 months and then there was no further change up to 1 year...The mean blood pressure at 12 months was 153/88mmHg (supine) and 142/88mmHg (standing)."

"The patients were receiving a single daily dose of 10 mg bendrofluazide [bendroflumethiazide]...there were no apparent side effects from the medication."

\*Wilkinson PR et al: The Lancet 1:759-762, 1975.





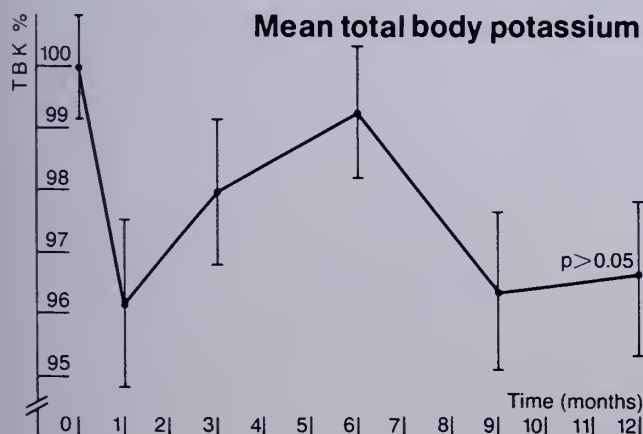
Once a day

# Naturetin<sup>®</sup>

Bendro-  
flumethiazide  
Tablets N.F.

2.5, 5 and 10 mg

## Potassium stabilized at 96% mean TBK



"The amount of potassium loss during the period of study did not seem to be clinically significant."

"A serum potassium of less than 3.5mmol per litre is often taken as the value below which potassium supplements should be given...At an arbitrary lower value for serum potassium of 3.0mmol per litre, few patients, our data suggest, would need potassium supplements. Our findings with TBK support this view..."

See next page for full prescribing information.

# Once a day Naturetin® Bendroflumethiazide Tablets N.F.

## NATURETIN®-2.5

## NATURETIN®-5

## NATURETIN®-10

### Bendroflumethiazide Tablets N.F.

#### DESCRIPTION

Naturetin (Bendroflumethiazide Tablets N.F.) is a benzothiadiazine derivative containing a benzyl and a trifluoromethyl group. It is a potent oral diuretic and antihypertensive agent available as compressed tablets providing 2.5, 5.0, or 10 mg. bendroflumethiazide.

#### ACTIONS

The mechanism of action results in an interference with the renal tubular mechanism of electrolyte reabsorption. At maximal therapeutic dosage all thiazides are approximately equal in their diuretic potency. The mechanism whereby thiazides function in the control of hypertension is unknown.

#### INDICATIONS

Naturetin (Bendroflumethiazide Tablets N.F.) is indicated as adjunctive therapy in edema associated with congestive heart failure, hepatic cirrhosis and corticosteroid and estrogen therapy.

Bendroflumethiazide has also been found useful in edema due to various forms of renal dysfunction such as: nephrotic syndrome, acute glomerulonephritis, and chronic renal failure.

Naturetin (Bendroflumethiazide Tablets N.F.) is indicated in the management of hypertension either as the sole therapeutic agent or to enhance the effectiveness of other antihypertensive drugs in the more severe forms of hypertension.

**Usage in Pregnancy.** The routine use of diuretics in an otherwise healthy woman is inappropriate and exposes mother and fetus to unnecessary hazard. Diuretics do not prevent development of toxemia of pregnancy, and there is no satisfactory evidence that they are useful in the treatment of developed toxemia.

Edema during pregnancy may arise from pathological causes or from the physiologic and mechanical consequences of pregnancy. Thiazides are indicated in pregnancy when edema is due to pathologic causes, just as they are in the absence of pregnancy (see WARNINGS). Dependent edema in pregnancy, resulting from restriction of venous return by the expanded uterus, is properly treated through elevation of the lower extremities and use of support hose; use of diuretics to lower intravascular volume in this case is illogical and unnecessary. There is hypervolemia during normal pregnancy which is harmful to neither the fetus nor the mother (in the absence of cardiovascular disease), but which is associated with edema, including generalized edema, in the majority of pregnant women. If this edema produces discomfort, increased recumbency will often provide relief. In rare instances, this edema may cause extreme discomfort which is not relieved by rest. In these cases, a short course of diuretics may provide relief and may be appropriate.

#### CONTRAINDICATIONS

Bendroflumethiazide is contraindicated in anuria.

It is also contraindicated in patients who have previously demonstrated hypersensitivity to it or other sulfonamide-derived drugs.

#### WARNINGS

Bendroflumethiazide should be used with caution in severe renal disease. In patients with renal disease, thiazides may precipitate azotemia. Cumulative effects of the drug may develop in patients with impaired renal function.

Thiazides should be used with caution in patients with impaired hepatic function or progressive liver disease, since minor alterations of fluid and electrolyte balance may precipitate hepatic coma.

Thiazides may be additive or may potentiate the action of other antihypertensive drugs. Potentiation occurs with ganglionic or peripheral adrenergic blocking drugs.

Sensitivity reactions may occur in patients with a history of allergy or bronchial asthma.

The possibility of exacerbation or activation of systemic lupus erythematosus has been reported.

**Usage in Pregnancy.** Thiazides cross the placental barrier and appear in cord blood. The use of thiazides in pregnant women requires that the anticipated benefit be weighed against possible hazards to the fetus. These hazards include fetal or neonatal jaundice, thrombocytopenia, and possibly other adverse reactions which have occurred in the adult.

**Nursing Mothers.** Thiazides appear in breast milk. If use of the drug is deemed essential, the patient should stop nursing.

#### PRECAUTIONS

Periodic determination of serum electrolytes to detect possible electrolyte imbalance should be performed at appropriate intervals.

All patients receiving thiazide therapy should be observed for clinical signs of fluid or electrolyte imbalance; namely, hyponatremia, hypochloremic alkalosis, and hypokalemia. Serum and urine electrolyte determinations are particularly important when the patient is vomiting excessively or receiving parenteral fluids. Medication such as digitalis may also influence serum electrolytes. Warning signs, irrespective of cause, are: dryness of the mouth, thirst, weakness, lethargy, drowsiness, restlessness, muscle pains or cramps, muscular fatigue, hypotension, oliguria, tachycardia, and gastrointestinal disturbances such as nausea and vomiting.

Hypokalemia may develop with thiazides as with any other potent diuretic, especially with brisk diuresis, when severe cirrhosis is present, or during concomitant use of corticosteroids or ACTH.

Interference with adequate oral electrolyte intake will also contribute to hypokalemia. Digitalis therapy may exaggerate metabolic effects of hypokalemia especially with reference to myocardial activity.

Any chloride deficit is generally mild and usually does not require specific treatment except under extraordinary circumstances (as in liver disease or renal disease). Dilutional hyponatremia may occur in edematous patients in hot weather; appropriate therapy is water restriction, rather than administration of salt except in rare instances when the hyponatremia is life threatening. In actual salt depletion, appropriate replacement is the therapy of choice.

Hyperuricemia may occur or frank gout may be precipitated in certain patients receiving thiazide therapy.

Insulin requirements in diabetic patients may be increased, decreased, or unchanged. Latent diabetes mellitus may become manifest during thiazide administration.

Thiazide drugs may increase the responsiveness to tubocurarine.

The antihypertensive effects of the drug may be enhanced in the postsympathectomy patient.

Thiazides may decrease arterial responsiveness to norepinephrine. This diminution is not sufficient to preclude effectiveness of the pressor agent for therapeutic use. If emergency surgery is indicated, preanesthetic and anesthetic agents should be administered in reduced dosage.

If progressive renal impairment becomes evident, as indicated by a rising nonprotein nitrogen or blood urea nitrogen, a careful reappraisal of therapy is necessary with consideration given to withholding or discontinuing diuretic therapy.

Thiazides may decrease serum PBI levels without signs of thyroid disturbance.

#### ADVERSE REACTIONS

**Gastrointestinal System:** anorexia, gastric irritation, nausea, vomiting, cramping, diarrhea, constipation, jaundice (intrahepatic cholestatic jaundice), and pancreatitis.

**Central Nervous System:** dizziness, vertigo, paresthesia, headache, and xanthopsia.

**Hematologic:** leukopenia, agranulocytosis, thrombocytopenia, and aplastic anemia.

**Dermatologic-Hypersensitivity:** purpura, photosensitivity, rash, urticaria, and necrotizing angitis (vasculitis, cutaneous vasculitis).

**Cardiovascular:** orthostatic hypotension may occur and may be aggravated by alcohol, barbiturates or narcotics. **Other:** hyperglycemia, glycosuria, occasional metabolic acidosis in diabetic patients, hyperuricemia, allergic glomerulonephritis, muscle spasm, weakness, and restlessness.

Whenever adverse reactions are moderate or severe, thiazide dosage should be reduced or therapy withdrawn.

#### DOSAGE AND ADMINISTRATION

Therapy should be individualized according to patient response. This therapy should be titrated to gain maximal therapeutic response as well as the minimal dose possible to maintain that therapeutic response.

**Diuretic:** The usual dose is 5 mg. once daily, preferably given in the morning. To initiate therapy, doses up to 20 mg. may be given once daily or divided into two doses. A single daily dose of 2.5 to 5 mg. should suffice for maintenance.

Alternatively, intermittent therapy may be advantageous in many patients. By administering the preparation every other day or on a three to five day per week schedule, electrolyte imbalance is less likely to occur; however, the possibility still exists.

In general, the lowest dosage that achieves the therapeutic response should be employed.

**Antihypertensive:** The suggested initial dosage is 5 to 20 mg. daily. Maintenance dosage may range from 2.5 to 15 mg. per day, depending on the individual response of the patient. When the diuretic is used with other antihypertensive agents, lower maintenance doses for each drug are usually sufficient.

#### STORAGE

Store at room temperature; avoid excessive heat.

#### HOW SUPPLIED

2.5 mg. tablets in bottles of 100, 5 mg. tablets (scored) in bottles of 100 and 1000, and 10 mg. tablets (scored) in bottles of 100.

**SQUIBB®**



# Digest of actions—State Committee of Public Health

*The State Committee of Public Health took the following actions at its meeting on April 13, 1977, in Mobile, Alabama.*

- Acknowledged receipt of a new Departmental publication by the Special Services Administration's Division of Vital Statistics entitled "Alabama's Population, 1930 - 1976."
- A proposed outline to determine State health needs was presented by the State Health Planning and Development Agency prior to consideration by the Statewide Health Coordinating Council. This proposal was approved with one addition.
- Approved the renewal application for SHPDA for FY1978 including the proposed budget with the provision that the Health System Agencies furnish their own travel during this year due to limited funds.
- Recommended revisions of the FY77 Alabama Medical Facilities Plan and considered published comments on four applications for revision. Denied the request for revision of Briarcliff Health Care Center, Shelby County, since a free-standing nursing home was built instead of an addition to an existing facility and which did not take advantage of

## Digest of actions of the State Board of Censors

*The State Board of Censors at its regular meeting on April 12, 1977, took the following actions:*

- Approved Expenses for Executive Director to attend American Association of Medical Society Executives National Educational Conference to be held June 15-17, 1977.
- Received as information a status report on the sale of exhibit space for the 1977 Annual Session.
- Nominated Arthur F. Lincoln, M.D., of Montgomery, to serve on the Title XIX Medical Care Advisory Committee for a three-year period.
- Authorized the Executive Director to investigate the possibility of the formation of a fund on a voluntary basis, to assist the families of disabled physicians who are experiencing financial hardship.
- Endorsed letter from AMA stating that Dr. Margaret S. Klapper's name had been submitted to the AMA Board of Trustees from sources other than MASA to serve on the AMA Liaison Committee on Continuing Medical Education.
- Received as information a speech regarding health delivery cost control which had been prepared by the Communications Department.
- Received as information the Digest of Actions taken at the Council on Medical Education meeting held March 27, 1977.
- Received as information a CME Fact Sheet for Distribution to the membership.
- Appointed Dr. Joseph R. Gladden as chairman of the District 14 Peer Review Committee.
- Received as information Report of Government Affairs Department.
- During its Organizational Session on April 16, 1977, immediately following the Saturday Business Session, the Board re-elected Dr. Leon C. Hamrick as chairman of the Board, and elected Dr. Carl A. Grote Vice-Chairman. ●

certain cost containment provisions which were considered by the Committee as essential.

Disapproved the Tuscaloosa Sick and Shut-in Nursing Home application since this would require a 72 additional bed need in an area that currently has 52 excess beds and consequently would not be in the interest of cost containment. Approved the request of Lamar County Hospital, Vernon, to program a total of 70 general hospital beds in this facility. This need was considered indicated due to increased utilization and augmentation of medical staff.

Approved the request for Montgomery-Lowndes area B-2 to provide for an additional psychiatric unit in Montgomery Baptist Medical Center.

- Approved a recommendation that the Medical Facilities Plan be interpreted on a line-item basis rather than service area.
- Received a nursing home status report which indicates 21,140 nursing home beds existing according to the FY1977 Medical Facilities Plan. Of this number, 18,878 beds are in service. It was noted that 165 nursing home beds were under construction without approval under the 1122 Program.
- Was advised that the new Personal Health Services Administration of the State Health Department is currently headed by Frederick S. Wolf, M.D., and that recruitment for an epidemiologist and a Director for the State Health Planning and Development Agency and a Deputy State Health Officer is in progress.
- Approved a Medicaid Plan amendment deleting the "maximum payment" schedule and replacing it with a "maximum needs considered" table.
- Received for information a progress report on the Medicaid Program including the expenditures for March, 1977, which totalled \$18,640,600.22. This brings the total expenditures for the first six months of 1977 to almost \$95 million.
- Noted that an Attorney General's opinion authorized narcotic agents to receive subsistence allowance as State Law Enforcement Officers when regularly assigned to law enforcement duties.
- Referred a request for a DEA Number to the Board of Medical Examiners from an educational institution involved in research. ●



POSITIONS AVAILABLE

**ESTABLISHING FAMILY PRACTICE PARTNERSHIP.** Modern well equipped office. No investment. Excellent remuneration with early full partnership. Adequate time off for continuing medical education or participating in good local deer, dove, and turkey hunting or water skiing and fishing. Chester Singleton, M.D., 703 Tuscaloosa St., Greensboro, Ala. 36744.

**IMMEDIATE OPENING FOR INTERNIST/GP** in 206 bed general medical and surgical VA Hospital, Montgomery, AL U.S. Licensure (any state) required. Excellent fringe and retirement benefits including malpractice coverage. Good medical library. Must be board certified/eligible. New ICU, RCU, and pulmonary function laboratory. Excellent facilities. Will pay travel and moving expenses. New VA physicians bonus. EEO Employer. Contact: Chief of Staff, VA Hospital, 215 Perry Hill Road, Montgomery, AL 36109, Telephone Number 205-272-4670.

**IMMEDIATE OPENING FOR RADIOLOGIST** in 206 bed general medical and surgical VA Hospital, Montgomery, Ala. U.S. Licensure (any state) required. Excellent fringe and retirement benefits including malpractice coverage. Good medical library. Must be board certified eligible. New ICU, RCU and pulmonary function laboratory. Excellent facilities. Will pay travel and moving expenses. New VA physicians bonus. EEO Employer. Contact: Chief of Staff, VA Hospital, 215 Perry Hill Road, Montgomery, AL 36109, Telephone Number (205) 272-4670.

**IMMEDIATE OPENING FOR UROLOGIST** in 206 bed general medical and surgical VA Hospital, Montgomery, Ala. U.S. Licensure (any state) required. Excellent fringe and retirement benefits including malpractice coverage. Good medical library. Must be board certified/eligible. New ICU, RCU, and pulmonary function laboratory. Excellent facilities. Will pay travel and moving expenses. New VA physicians bonus. EEO Employer. Contact: Chief of Staff, VA Hospital, 215 Perry Hill Road, Montgomery, AL 36109, Telephone Number (205) 272-4670.

**IMMEDIATE OPENING FOR GENERAL SURGEON** in 206 bed general medical and surgical VA Hospital, Montgomery, Ala. U.S. Licensure (any state) required. Excellent fringe and retirement benefits including malpractice coverage. Good medical library. Must be board certified eligible. New ICU, RCU, and pulmonary function laboratory. Excellent facilities. Will pay travel and moving expenses. New VA physicians bonus. EEO Employer. Contact: Chief of Staff, VA Hospital, 215 Perry Hill Road, Montgomery, AL 36109, Telephone Number (205) 272-4670.

**INDUSTRIAL MEDICINE PHYSICIAN.** Richmond and Newport News, Virginia, Muscle Shoals, Alabama. Full clinic facilities with nurse staff, 1-2 other physicians (dependent on size) to complete staff at the manufacturing facilities. Clinic reports directly to Complex Manager. All three facilities are extremely financially stable Fortune 500 firms. \$40,000 per annum. Insurance (including malpractice) and relocation paid by the client companies. Contact: Journal, Box B, 19 S. Jackson St., Montgomery, Alabama 36104.

**PRIMARY CARE PHYSICIANS** wanted to locate in West Central Alabama. Rural Health Initiative program has choice of several possible sites with salaries up to \$40,000. Some communities have established clinics. Other communities are willing to build to suit physician. Individual or group practice possible. Salaries for all staff guaranteed until practice is self-supporting. Generous fringe benefits. Write Health Development Corporation, P.O. Box 487, Carrollton, Alabama 35477, or call Frank Cochran COLLECT 367-8138, evening hours 553-2198.

**PRIMARY CARE PHYSICIAN** wanted to locate in Northern Alabama town with population of 14,000 with county population of approximately 55,000. New modern 100-bed hospital with full range of services including availability of specialist in most fields and coverage of Emergency Department every night and weekends. Office suites are available rent free and other financial arrangements can be made relative to guaranteed minimum income and relocation and moving expenses. This area is noted for excellent secondary schools in addition to the availability of fishing, camping, hunting and other recreational opportunities. Box C, MASA, 19 S. Jackson St., Montgomery 36104.

**GENERAL SURGEON:** Large Southern Clinic needs General Surgeon interested in trauma and hand Surgery. Excellent Salary plus benefits. Contact: Journal, Box A, 19 S. Jackson St., Montgomery, Ala. 36104.

**ACTIVE FAMILY PRACTICE** with office adjacent to 110 bed JCAH hosp. in excellent South-Central Ala. town, excellent schools, 8 friendly physicians to share call. \$75,000 average net income with controlled hours and pleasant patients. Will sell practice/rent office at very reasonable rate. Box A, Journal, 19 S. Jackson St., Montgomery, Ala. 36104.

**COORDINATOR OF SYSTEMS DEVELOPMENT** — Design, develop, test and implement systems required for the Family Practice Center, including (especially) medical records, patient accounting, billing and insurance systems — sharing a common data base and requiring interactive programs. **QUALIFICATIONS:** 1) At least three to five years experience in development of computer systems, desire two or more years analysis experience in project type work. 2) COBOL programming experience. 3) Familiarity with executive control language used by the Univac 1110. 4) Experience with interactive systems. 5) Experience with separate programs, using a common data base. 6) Hardware knowledge required to select peripheral equipment, communications equipment and mini-computer systems. Salary offered: \$15,000.00 annually. The University of Alabama is an Equal Opportunity Employer. Please send resumes to The University of Alabama, Employment Office, P. O. Box 6163, University, Alabama 35486.

**STUDENT HELP. UNIVERSITY OF ALABAMA, TUSCALOOSA CAMPUS.** Anticipated vacancy July 1, 1977. Comprehensive primary care for 16,000 students. Previous primary care or college help experience desired. Alabama license and DEA registration required. Competitive salary and excellent fringes, including liability. Send full resume to: S. B. Alexander, M.D., Director, University Health Service, University, Alabama, 35486. Telephone: (205) 348-6262. An affirmative action equal opportunity employer.

**PHYSICIAN NEEDED FOR A MODEL RURAL PRIMARY HEALTH CARE CENTER.** Excellent Hunting, Fishing, Water Sports, Greyhound Racing and Pari-Mutual Wagering. \$35,000 - \$40,000 Salary Range plus 18% Fringe Benefit Package, two weeks vacation, office hours 8-5 daily with no evening duties or calls. For further information please contact: James W. Coleman, West Alabama Health Services, Inc., P. O. Box 449, Eutaw, Alabama 35462, (205) 372-9225.

**WANTED:** General practice psychiatrist to work with community mental health program. Have an understanding of community mental health work, able to work with a wide variety of staff, willing to do some travel within catchment area on scheduled basis. Contact Montgomery Area Mental Health Center, 1616 Mt. Meigs Road, Montgomery, Alabama. Telephone 263-7541.

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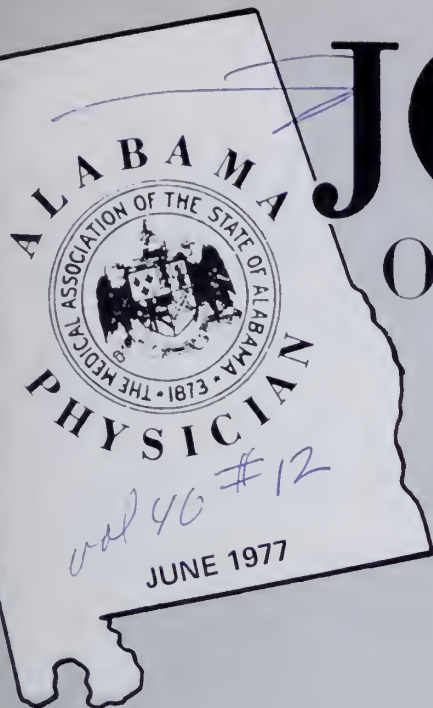
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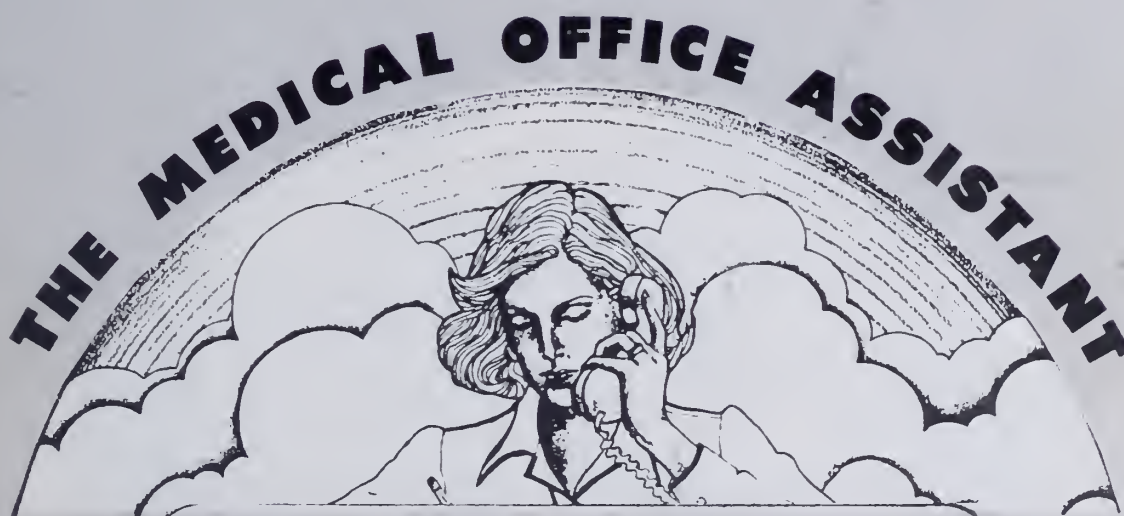
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## COMMUNICATING MORE EFFECTIVELY

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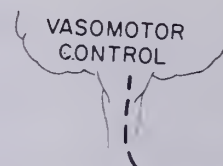
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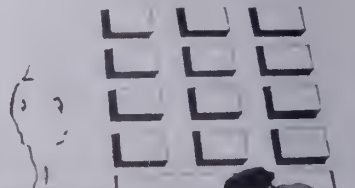
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# 19 VIEWS



This month MASA welcomes new staff member William H. McDonald as Director of the Communications Department. A Montgomery native, McDonald is no stranger to the field of communications, having been associated with *The Montgomery Advertiser* for more than 28 years, first as a staff reporter, then assistant editor and finally editorial page editor.

Educated in Montgomery schools, he joined the *Advertiser* staff as a reporter planning to work during the summer months between quarters at The University of Alabama where he was a student. Instead, he stayed 28½ years, working his way to the prestigious position of editorial page editor, a capacity which he has filled for the past ten years.

In addition to his newspaper responsibilities, McDonald served for a time as correspondent for *Time*, *Life*, *Fortune*, *The New York Times*, and Alabama correspondent for the Southern Education Reporting Service under a grant from the Fund for the Advancement of Education (Ford Foundation). He is also co-author of a book published by SSN entitled, "Southern Schools: Progress and Problems," an overview of regional education, kindergarten through college.

His hobbies include reading, amateur photography and personal physical training along the lines of Dr. Ken Cooper's "aerobics" program.

McDonald will serve as staff assistant to MASA's Council on Public Affairs. He will also serve as associate editor of the *Journal* and *The Alabama M.D.* with a commitment to continue the content development and reader acceptability of these publications.

Other staff responsibilities will be to devise and implement all public affairs programs of the Association and to direct the publication of all pamphlets, brochures and other publications for MASA's membership and/or the general public.

McDonald's experience and ability should provide the Association with the needed expertise to upgrade its publications to fully meet the needs and expectations of the membership. ●

## INFORMATION FOR AUTHORS CONCERNING MANUSCRIPTS


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**Style:** The first page should list title, the author (or authors), degrees, and any institutional or other credits. Bibliographies must contain in the order given: Name of author, title of article, name of periodicals with volume, page, month — day of month if weekly — and year. Number should be limited to absolute minimum. References should be numbered consecutively in order in which they appear in the text.

**Length Of Articles:** Articles should not exceed 3,000 words (approximately 3-4 printed pages). Under exceptional circumstances only will articles of more than 4,000 words be published.

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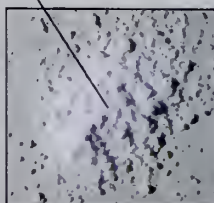


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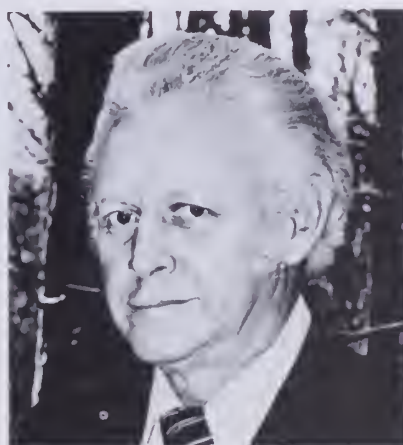
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## MESSAGE FROM THE PRESIDENT



Incredible as it may seem, sometime soon people are going to come to you and pay for the services you render. For a few of you this may be justification enough for the arduous struggle you have endured during your training. For others of you there may be the gradual recognition that the magnitude of the problem or problems the patient presents doesn't match the willingness of the patient to pay for or seek your services. You begin to ask yourself the question: What is the real problem? If brooding and anger appear to dominate the patient's distress you must inevitably ask: Who is the real problem?

During the succeeding weeks or months you will ultimately discover that one of the most effective tools you have in your armamentarium for healing is not your prodigious memory of medical or surgical facts, but that your most potent tool for healing is you, yourself. Somewhere here, in factoring the psychological and physical elements of disease, you become a physician.

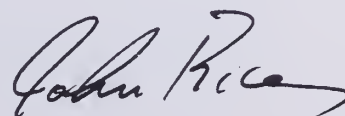
There is little question that physicians as a group are among the most compulsive of all God's creatures. It is our strength and our greatest weakness. It makes us loved for being dedicated and prompt and thorough. It damns us for being unfeeling and pre-occupied husbands and wives or fathers or mothers. We are on the one hand, revered and admired and on the other, distressingly inept as warm and affectionate companions and lovers. We are shattered by losing a patient to a physician of lesser training and buoyed by being the first to recognize a rare and uncommon disease process. We measure success in terms of things and numbers of patients we see and are distraught if a colleague with lesser talent has greater financial success.

Finally, we are political ignoramuses. For us compromise is a dirty word. Our compulsive determination to do "our thing our way" and our complacency in meeting real or perceived health care needs are being met with very vocal criticism on the part of the public, and this criticism is being turned into political action frequently unfavorable to the freedom of action of the physician. Until recently the creation of new kinds of physician surrogates (who are pre-Flexnerian doctors of a new era) had been our only serious effort in humanizing health care.

An angry public is telling us that unless the sellers' market in health care changes, and soon, we as physicians are going to be locked into a national health care program where physicians will be something less than physicians. As bad as it may be, as un-American as it may be, as bureaucratic as it may be, they tell us it is better than what they are now receiving.

There is a general conviction on the part of the public that health care is an inalienable right and that a community without physicians is just as much in jeopardy as a community without churches or schools or public utilities. It is a fact that general physicians who have been the backbone of community health care are dying off at a rate substantially faster than they are being replaced.

God, help us all to meet the challenge. ●



\*Presented at the Honors Convocation, University of Alabama School of Medicine, Birmingham, Alabama, May 16, 1976. Reprinted by permission. THE ALABAMA JOURNAL OF MEDICAL SCIENCES, Vol. 13, No. 4, October, 1976.

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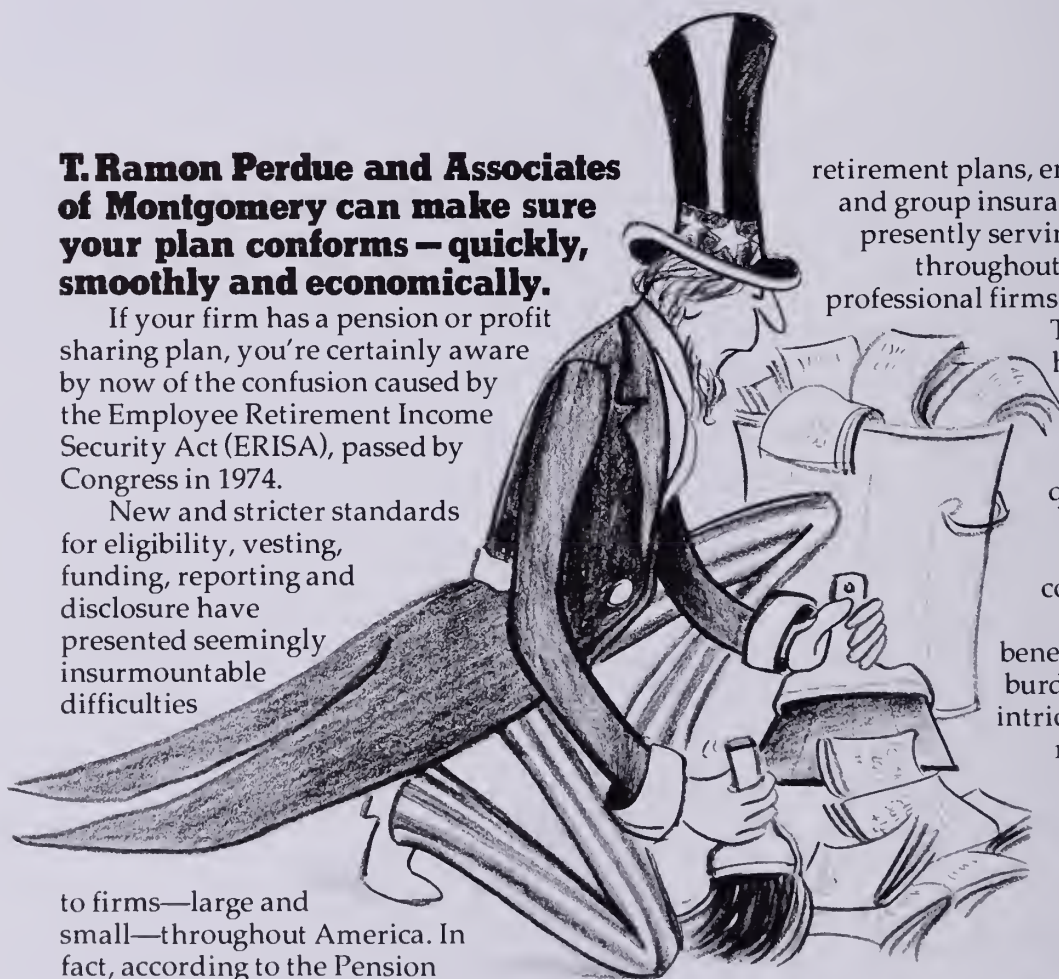
And that's a shame. Because what may seem an insurmountable difficulty to the inexperienced, can be perfectly routine to the specialist.

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Ramon Perdue and Associates has been selected to design and administer the Medicare Association of the State of Alabama Employee Pension Plan.



# Letters to the Editor

---

## Regrets From Guatemala

Dear Sirs:

It is with deep regret that I was obliged by circumstances to decline your most cordial invitation to attend the meeting of the Medical Association of the State of Alabama held on April 14-16, 1977 in Mobile. Unfortunately, due to my nine-day absence from Guatemala while I attended a course in microsurgery at the University of Florida in Gainesville, I did not receive your invitation, dated February 22nd and mailed on the following day, until my return to my office on Wednesday, April 13.

It would have been an immense pleasure for me to interact with you at the meeting and to share with you what little knowledge I possess with regard to the emergencies that arose in the area of surgery during our time of crisis. I have felt the need of participating with you, my most esteemed colleagues of the State of Alabama, whom I consider our good-willed neighbors and whose manifestations of warmth and understanding of our problems I deeply appreciate. If I was unable to be present at the time of the meeting, my thoughts and best wishes for the success of the discussions carried on were always with you because of the benefits that the Partners of the Americas in Alabama will undoubtedly provide for the welfare of the less developed countries on our American continent.

Hoping I will once again have the privilege of meeting with you in the State of Alabama or in Guatemala and that our relations will continue as cordial as they are at present. I remain,

Sincerely yours,  
Cesar Mishaan Pinto, M.D.  
Surgeon  
Guatemala, Central America

## HEW Apology

*(Editor's note: The following letter from Joseph Califano, Secretary of HEW, directed to James H. Sammons, M.D., is a prime example of organized medicine working in unity at all three levels: county, state and national. Only through combined efforts was the survey of 208 physicians possible in such a short period of time.)*

James H. Sammons, M.D.  
Executive Vice President  
American Medical Association  
535 North Dearborn Street  
Chicago, Illinois 60610

Dear Dr. Sammons:

This is in response to your letter of April 6 concerning errors in the Social Security Administration's March 12 listing of physicians who received public funds in excess of \$100,000 from the Medicare program in calendar 1975.

On behalf of the Department of Health, Education, and Welfare and the Social Security Administration, let me express our deep regret at the significant number of errors contained in the March 12 listing. As I personally indicated to you at our meeting, I am deeply distressed at the number

of errors, and I regret any embarrassment that may have been caused to any of your individual members.

I have asked Robert Derzon, the Administrator-Designate of the new Health Care Financing Administration, to review the entire matter with the view toward taking whatever actions are necessary to prevent a situation like this from arising again. He will discuss these corrective actions with you. In this connection, *the results of your survey of 208 of the physicians listed as solo practitioners have been particularly helpful*. He will verify and correct our original listing and put out a new one for 1975.

I am committed to making more information public about the costs of health in our nation. In the future, we will make significantly more information available to the public. There will be no arbitrary cut-off on care at \$100,000 for the fees of doctors, and information about other health care providers will also be available to the public. We will do everything in our power in the future to make certain that, when we publish the amounts of money that institutions and individuals receive from the Medicare program, they have been carefully checked and are as accurate as possible, given the enormous scope of the program.

It is imperative that the American public have all the facts about the costs, utilization, and practices of health care providers as they consider the method by which to provide a national health insurance program for all citizens. Our responsibility is to make as much information public as we can, without invading any individual's privacy, and to make certain that information is accurate. With respect to the 1975 list, the Department did not adequately fulfill its responsibility. I intend to see that it does in the future.

Sincerely,  
Joseph A. Califano, Jr.

## Award Winner Responds

Gentlemen:

Just a small note to say that I thank you, individually and collectively, for selecting me as a recipient of the Douglas L. Cannon Award. I am most appreciative of the honor, and your check will help to rescreen my front porch, just in time for those balmy Mobile Bay breezes! Thank you most sincerely.

With best regards,  
Cammie East  
Staff Reporter  
Mobile Press-Register

## Setting The Record Straight

The March 15, 1977 front page announcement in the *Birmingham Post-Herald* that 25 doctors received seven million dollars for Medicare should have been slanted to say "25 doctors praised for delivering ten million dollars worth of services for only seven million compensation." It should

CONTINUED ON PAGE 11

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For asthma management...

## **Tedral<sup>®</sup> / Tedral SA<sup>®</sup> / Tedral Elixir<sup>®</sup>**

Each tablet contains 130 mg theophylline, 24 mg ephedrine hydrochloride, and 8 mg phenobarbital

Each tablet contains 180 mg anhydrous theophylline (90 mg in the immediate release layer and 90 mg in the sustained release layer), 48 mg ephedrine hydrochloride (16 mg in the immediate release layer and 32 mg in the sustained release layer), and 25 mg phenobarbital in the immediate release layer

Each 5 ml teaspoonful contains 32.5 mg theophylline, 6 mg ephedrine HCl, and 2 mg phenobarbital; the alcohol content is 15%.

**SUSTAINED ACTION**



**WARNER/CHILCOTT**

Division, Warner-Lambert Company  
Morris Plains, New Jersey 07950

T-GP-74-B/W



## TEDRAL®

### TEDRAL® SA Sustained Action

### TEDRAL® Elixir

**CAUTION:** Federal law prohibits dispensing Tedral SA without prescription.

**Description.** Tedral: each tablet contains 130 mg theophylline, 24 mg ephedrine hydrochloride, and 8 mg phenobarbital.

Tedral SA: each tablet contains 180 mg anhydrous theophylline (90 mg in the immediate release layer and 90 mg in the sustained release layer); 48 mg ephedrine hydrochloride (16 mg in the immediate release layer and 32 mg in the sustained release layer); 25 mg phenobarbital in the immediate release layer.

Tedral Elixir: each 5 ml teaspoonful contains 32.5 mg theophylline, 6 mg ephedrine hydrochloride, and 2 mg phenobarbital; the alcohol content is 15%.

**Indications.** Tedral, Tedral SA, and Tedral Elixir are indicated for the symptomatic relief of bronchial asthma, asthmatic bronchitis, and other bronchospastic disorders. They may also be used prophylactically to abort or minimize asthmatic attacks and are of value in managing occasional, seasonal or perennial asthma.

Tedral SA (Sustained Action) offers the convenience of b.i.d. dosage.

Tedral Elixir is convenient for persons who may have difficulty in swallowing tablets.

These Tedral formulations are adjuncts in the total management of the asthmatic patient. Acute or severe asthmatic attacks may necessitate supplemental therapy with other drugs by inhalation or other parenteral routes.

**Contraindications.** Sensitivity to any of the ingredients; porphyria.

**Warnings.** Drowsiness may occur. PHENOBARBITAL MAY BE HABIT-FORMING.

**Precautions.** Use with caution in the presence of cardiovascular disease, severe hypertension, hyperthyroidism, prostatic hypertrophy, or glaucoma.

**Adverse Reactions.** Mild epigastric distress, palpitation, tremulousness, insomnia, difficulty of micturition, and CNS stimulation have been reported.

**Average Dosage.** *Prophylactic or Therapeutic.*

Tedral: *Adults*—One or two tablets every 4 hours. *Children*—(Over 60 lb) one-half the adult dose.

Tedral SA: *Adults*—One tablet on arising and one tablet 12 hours later. Tablets should not be chewed. *Children*—Not established for children under 12.

Tedral Elixir: *Note:* One teaspoonful is equivalent to one-quarter Tedral tablet. *Children*—One teaspoonful per 30 lb body weight, every 4-6 hours, unless prescribed otherwise by physician. Should be given to children under 2 years of age only with extreme caution. *Adults*—One to two tablespoonfuls every four hours.

**Supplied.** Tedral: White, uncoated scored tablets in bottles of 24 (N 0047-0230-24), 100 (N 0047-0230-51) and 1000 (N 0047-0230-60). Also in Unit Dose—package of 10 x 10 strips (N 0047-0230-11).

Tedral SA: Double-layered, uncoated, coral/mottled white tablets in bottles of 100 (N 0047-0231-51) and 1000 (N 0047-0231-60). Also in Unit Dose—package of 10 x 10 strips (N 0047-0231-11).

Tedral Elixir: Dark red and cherry-flavored in 474 ml (16 fl oz) bottles (N 0047-0242-16).

STORE BETWEEN 59° and 86°F (15° and 30°C).

Full information is available on request.

## LETTERS TO THE EDITOR

CONTINUED FROM PAGE 9

have stated that each year fewer and fewer doctors accept assignment from Medicare and Medicaid because of retro-active denials, excessive paper work required and because of spotlighting they must anticipate.

Only by doing a large volume or a token volume which can be absorbed in the operating cost it is practical to handle Medicaid and Medicare as assignments. The ones who suffer are the poor and the elderly. Little attention was given to the fact that this year's budget called for a reduction of patient benefits while increasing the amount allotted to the administration of paper work. Such is the course of bureaucracy.

Front page announcements and letters to the editor giving explanation always skirt the issue. Can you feature the reaction of a news media accused of distorting the truth on the front page and two or three days later a retraction in the editorial page? Front page rebuttals are demanded when front page attacks are brought out.

Andrew M. Brown, M.D.

Gadsden, Alabama

## Data Collection

To Alabama Physicians:

I am convinced that lives now needlessly lost to severe systemic reactions to insect sting could be saved by a greater awareness of both the possibilities of such fatal responses and of the existence of insect sting kits to be employed as emergency, first aid measures to stave off anaphylaxis. Because of this conviction, I am in the process of collecting and collating data on the incidence of such fatalities.

I am especially interested in the time lapse between sting and death, although other information would also be greatly appreciated such as the following: time sequence of symptoms, previous reactions victim may have had to insect stings, whether and what medication the victim may have had on hand at the time of the incident, the type of insect if known, how many stings the victim may have suffered, and an estimation of whether or not a physician or hospital emergency room could have been reached in time to avoid a fatal outcome.

Thank you.

Claude A. Frazier, M.D.

4-C Doctors Park

Asheville, N.C. 28801

## In Support

Dear Doctor Smith:

I found the article of Dr. Andrew M. Brown, as published in your issue of May, 1977, about Herpes Zoster, excellent and informative.

To deny the credibility of the article as per a letter of one of the faculty associates of the University of Alabama in Birmingham, is to deny Phase I of Experimental Sciences — Observation. And to deny Observation is to deny most, if not all, the works of Claude Bernard, Pasteur, Pavlov, and Noguchi.

Blind control studies cannot always be done, and when they can, sometimes they should not.

I wish to compliment the Editor of the State Journal for accepting the article of Dr. Brown.

Henri Rathle, M.D.

Mobile, Alabama

On March 29 and 30 of this spring, the UAH School of Primary Medical Care held a continuing education conference on *Nutritional Advancements: Current Problem Management for Primary Care Physicians*. Among the members of MASA attending the conference was Dr. J. O. Belue, who was born in 1888 and has been in general practice in Athens for 56 years of the 62 years he has been practicing medicine. When Dr. Belue was asked why he wanted to drive the 30 mile round trip from Athens two days in a row to sit in an over-crowded room and listen to other physicians of half his age and years of professional experience, he replied, "Because I don't know it all yet."

That may be the most important attitude for our residents and students to carry with them from formal medical education to practice. It has been estimated that half of what a medical student learns is obsolete five years after he graduates from medical school, half of what's left is obsolete five years after that, and so on. Whatever the rate of obsolescence of professional information may be for a physician's particular specialty and practice situation, it seems clear that he owes it to his patients as well as himself to continually refresh and update his knowledge and skills.

This professional obligation is increasingly recognized through requirements for specialty board recertification and for regular periodic certification in continuing education. Though the American Board of Family Practice is the only specialty board to date that requires periodic recertification (every seven (7) years for the ABFP), other boards, particularly those for other specialties active in primary care, are recommending periodic recertification, if only on a voluntary basis. AMA Continuing Education credits of the type and numbers necessary for an AMA Physician's Recognition Award are beginning to be required by state medical societies for membership (in Alabama, Kansas, and Oregon, among others) and by states (New Mexico, for one) for maintenance of licensure. The need for continuing

## DEAN'S REPORT

# Continuing Education:

G. GAYLE STEPHENS, M.D.

The University of Alabama in Huntsville

education was the impetus for the founding in 1957 of the American Academy of Family Practice, which was the first medical professional group to make continuing education requirements a condition of membership. (Continuing Education Certification every three years is still the AAFP's only membership criterion.)

From the months of earliest faculty recruitment in 1973, we have thought of the education programs of the School of Primary Medical Care as three-part: student (last two years of medical school), resident (family practice, thus far), and continuing education. We feel that as a community-based school, we owe continuing education offerings to the area medical community that does a large part of the teaching of our students and residents. We also feel that we owe these students and residents the example of doctors who continue to learn throughout their working lives.

Under the direction of Herbert T. Smith, M.D., who serves as both Chairman for Family Practice Programs and Director of Continuing Education Programs, the UAH School of Primary Medical Care has presented eleven continuing medical education conferences during the last three years (Table A). All of these programs have been jointly sponsored with the Alabama Chapter of the American Academy of Family Physicians (AAFP) and most have been approved for AMA credit hours as well as for AAFP credit hours.

Planned basically for physicians and other professionals

TABLE A: UAH SPMC CONTINUING MEDICAL EDUCATION CONFERENCES

COURSE TITLE	DATE HELD	NO. OF REGISTRANTS
The Problem Oriented Medical Record Workshop	May 16, 1974	55
High Risk Pregnancy—High Risk Infant Care	July 24-27, 1974	65
The Problem Oriented Medical Record Workshop	February 17, 1975	28
Dermatology For The Family Physician	February 28 - March 1, 1975	90
Primary Care Nutrition For The Family Physician	April 25-26, 1975	125
Alcoholism 1975, Problems, Perspective And Plans	October 23, 1975	58
Caring For The Helper	January 8-9, 1976	32
Update Orthopedics For Family Physicians	March 25-26, 1976	95
Pediatric Therapy For Family Physicians	August 26-28, 1976	88
Surgery, 1977: Current Diagnosis And Therapy For Common Surgical Problems	February 8-9, 1977	92
Nutritional Advancements: Current Problem Management For Primary Care Physicians	March 29-30, 1977	236

TOTAL NUMBER OF PERSONS ATTENDING THE 11 WORKSHOPS 964



# A State Of Mind



Left: John Kendall Black, Jr., M.D., Adjunct Assistant Professor of Surgery. Above: Richard C. Burnside, M.D., Clinical Faculty (Orthopedics). Below: H. Donald Beck, M.D., Clinical Assistant Professor of Surgery (Orthopedics).

involved in primary care, most of the SPMC continuing education conferences focus on updates and improvements in diagnosis, therapy, management, and health care delivery techniques during the previous three years. Our February conference on *Surgery, 1977: Current Diagnosis and Therapy for Common Surgical Problems* covered Malignant Melanoma, Recognition and Management of Early Stages, Common Rectal Problems, Outpatient Management, The Acute Abdomen, Early Diagnosis, Advancement in Adjuvant Chemotherapy of Solid Tumors, Common Sense Treatment of Hand Injuries; The Problem Pancreas; Management of Abdominal Trauma; The Use of Blood and Blood Components; Recent Advances in Diagnostic Nuclear Medicine; Peripheral Vascular Disease: Ten Practical Questions; Evaluation of Hematuria; Acute and Chronic Respiratory Failure Management; Esophageal Reflux: Problems in Diagnosis and Treatment. Oriented toward practical rather than research aspects of medicine, the conference presentations offer information for more effective understanding and treatment of common critical situations encountered by primary care physicians.

The only School of Primary Medical Care continuing education conferences so far that doesn't fit this description are the two Problem Oriented Medical Record Workshops. Working with actual patients, participants completed a data base and a sample record. Dr. Smith is working with Huntsville Hospital on plans to hold similar workshops for various sections of the hospital staff.

Dr. Thornton Bryan of the University of Tennessee Department of Family Practice, who conducted our first Problem Oriented Medical Record Workshop with Dr. Smith, is one of twenty-two speakers from medical schools in other states who have given presentations at our continuing education conferences. Other out-of-state speakers have included Philip Thorek, M.D., University of Illinois (*Surgery, 1977*); Sumner J. Yaffe, M.D., University of Pennsylvania (*Pediatric Therapy for Primary Physicians*);

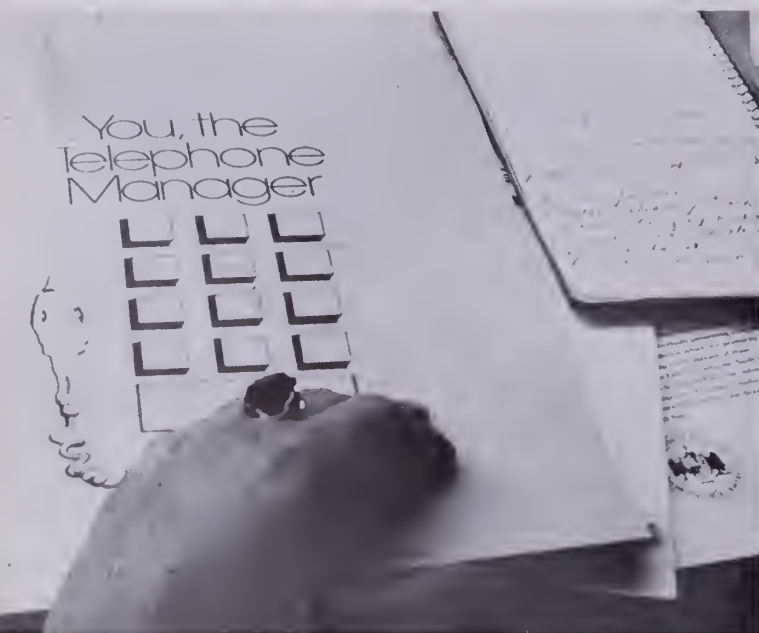


John K. Davidson, III, M.D., Ph.D., Emory (*Nutritional Advancements: Current Problem Management for Primary Care Physicians*); and Alfonso Paredes, M.D., University of Oklahoma (*Alcoholism, 1975: Problems, Perspective and Plans*).

Of the conference speakers from Alabama, thirteen teach at the School of Medicine in Birmingham and thirty-three are members of the faculty or volunteer clinical faculty of the School of Primary Medical Care. It may be that the most worthwhile achievement of the SPMC continuing medical education programs is the opportunity they provide for local physicians to make presentations to each other. During one of the sessions of the conference on *Update Orthopedics for Family Physicians*, for example, local orthopedic surgeons on the school's faculty and volunteer clinical faculty demonstrated casting techniques for their fellow physicians, residents, and students (photos).

Physicians in the Huntsville area have opportunities every week to accumulate AMA and AAFP credits by attending the SPMC's on-going academic events. All regularly-scheduled lecturers, seminars, and conferences in the

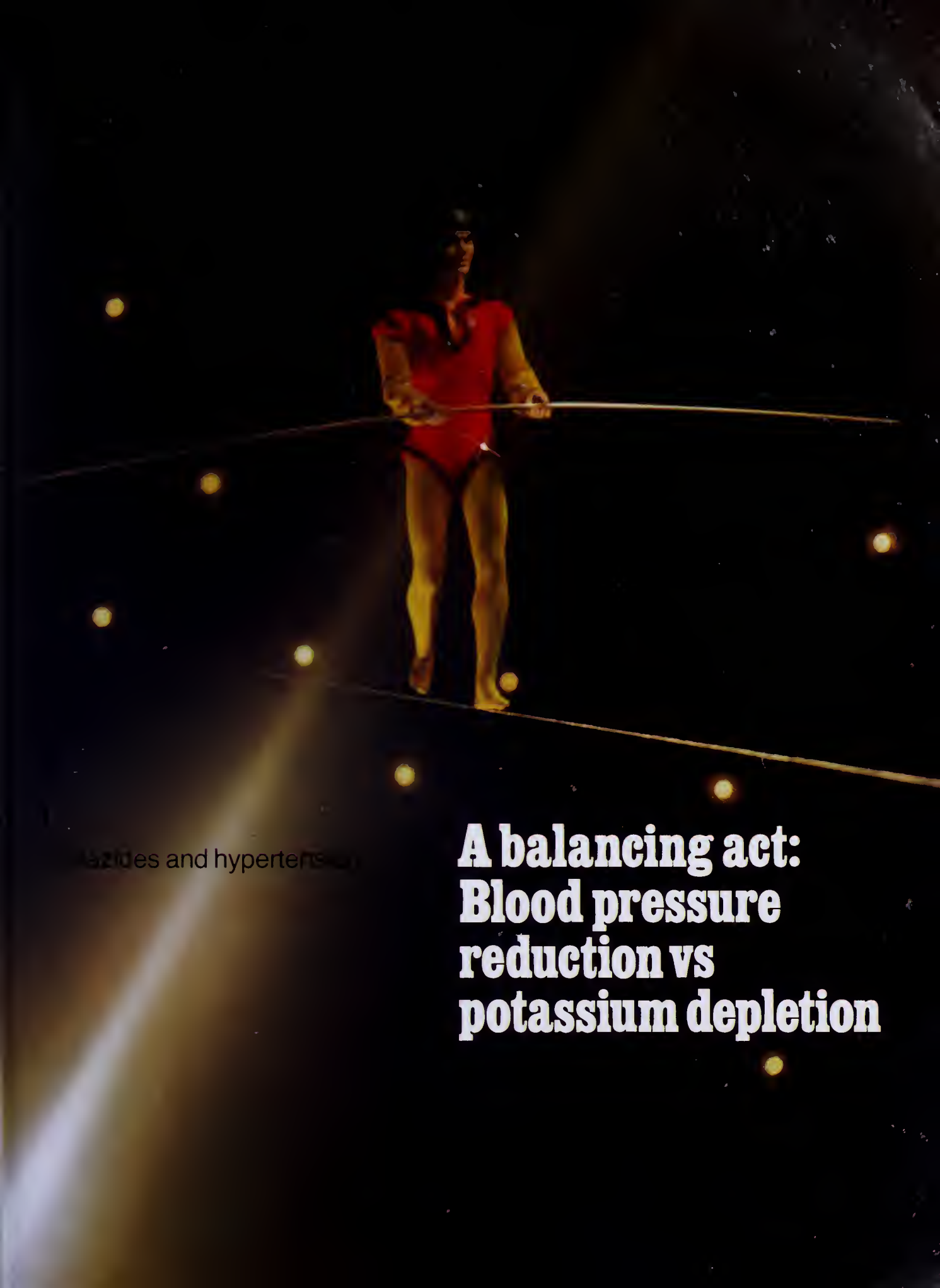
CONTINUED ON PAGE 60



## Public Relations Workshops Rated Successful

"You, The Telephone Manager" and "Medical Collections" are two AMA developed medical personnel programs which were held May 24-27 in South and Central Alabama. More than 400 medical office assistants attended the workshops in Montgomery, Dothan, and Mobile. The response parallels that received last year in Birmingham when the Jefferson County Medical Society conducted similar workshops. It is estimated that, based upon this overwhelming response, future workshops will be under consideration for other areas of the state later on this summer or early fall. The programs in each city were hosted by the local county medical society in cooperation with The Medical Association of The State of Alabama. Conducting the workshops were Karen Zupko of the AMA and John T. Mooresmith, MASA's General Counsel. Also participating was George Oetting, MASA's Director of Education. The sessions included visual aids and role-playing, lectures, and program-assessment surveys. According to Ms. Zupko, the workshops over the past two years have proven more successful than the AMA's Department of Practice Management anticipated. The turn-out has been phenomenal and without the local county medical societies' endorsement, many of the programs would not have been possible. ●





azides and hypertension

# **A balancing act: Blood pressure reduction vs potassium depletion**

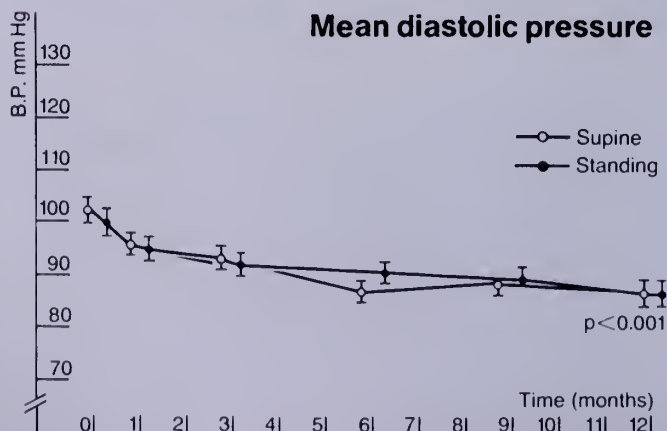
From a 1-year study of 18 patients  
with mild uncomplicated  
hypertension published in The Lancet\*

Once a day

# Naturetin<sup>®</sup>

Bendro-  
flumethiazide  
Tablets N.F.

## Diastolic blood pressure down 12-15%



"The mean pretreatment blood pressure was 170/103mmHg (supine) and 166/100mmHg (standing). Diastolic pressure continued to fall over the first 6 months and then there was no further change up to 1 year...The mean blood pressure at 12 months was 153/88mmHg (supine) and 142/88mmHg (standing)."

"The patients were receiving a single daily dose of 10 mg bendrofluazide [bendroflumethiazide]...there were no apparent side effects from the medication."

\*Wilkinson PR et al: The Lancet 1:759-762, 1975.





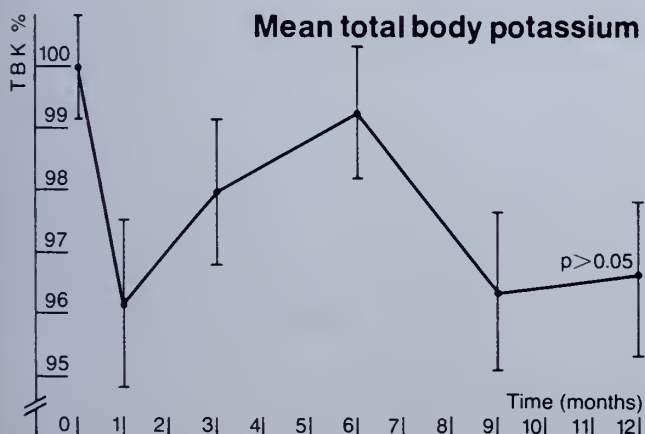
Once a day

# Naturetin®

Bendro-  
flumethiazide  
Tablets B.F.

2.5, 5 and 10 mg

## Potassium stabilized at 96% mean TBK



"The amount of potassium loss during the period of study did not seem to be clinically significant."

"A serum potassium of less than 3.5mmol per litre is often taken as the value below which potassium supplements should be given...At an arbitrary lower value for serum potassium of 3.0mmol per litre, few patients, our data suggest, would need potassium supplements. Our findings with TBK support this view..."

See next page for full prescribing information.

# Once a day **Naturetin**<sup>®</sup> **Bendroflumethiazide** **Tablets N.F.**

## **NATURETIN<sup>®</sup>-2.5**

## **NATURETIN<sup>®</sup>-5**

## **NATURETIN<sup>®</sup>-10**

## **Bendroflumethiazide Tablets N.F.**

### **DESCRIPTION**

Naturetin (Bendroflumethiazide Tablets N.F.) is a benzothiadiazine derivative containing a benzyl and a trifluoromethyl group. It is a potent oral diuretic and antihypertensive agent available as compressed tablets providing 2.5, 5.0, or 10 mg. bendroflumethiazide.

### **ACTIONS**

The mechanism of action results in an interference with the renal tubular mechanism of electrolyte reabsorption. At maximal therapeutic dosage all thiazides are approximately equal in their diuretic potency. The mechanism whereby thiazides function in the control of hypertension is unknown.

### **INDICATIONS**

Naturetin (Bendroflumethiazide Tablets N.F.) is indicated as adjunctive therapy in edema associated with congestive heart failure, hepatic cirrhosis and corticosteroid and estrogen therapy.

Bendroflumethiazide has also been found useful in edema due to various forms of renal dysfunction such as: nephrotic syndrome, acute glomerulonephritis, and chronic renal failure.

Naturetin (Bendroflumethiazide Tablets N.F.) is indicated in the management of hypertension either as the sole therapeutic agent or to enhance the effectiveness of other antihypertensive drugs in the more severe forms of hypertension.

**Usage in Pregnancy.** The routine use of diuretics in an otherwise healthy woman is inappropriate and exposes mother and fetus to unnecessary hazard. Diuretics do not prevent development of toxemia of pregnancy, and there is no satisfactory evidence that they are useful in the treatment of developed toxemia.

Edema during pregnancy may arise from pathological causes or from the physiologic and mechanical consequences of pregnancy. Thiazides are indicated in pregnancy when edema is due to pathologic causes, just as they are in the absence of pregnancy (see WARNINGS). Dependent edema in pregnancy, resulting from restriction of venous return by the expanded uterus, is properly treated through elevation of the lower extremities and use of support hose; use of diuretics to lower intravascular volume in this case is illogical and unnecessary. There is hypervolemia during normal pregnancy which is harmful to neither the fetus nor the mother (in the absence of cardiovascular disease), but which is associated with edema, including generalized edema, in the majority of pregnant women. If this edema produces discomfort, increased recumbency will often provide relief. In rare instances, this edema may cause extreme discomfort which is not relieved by rest. In these cases, a short course of diuretics may provide relief and may be appropriate.

### **CONTRAINDICATIONS**

Bendroflumethiazide is contraindicated in anuria.

It is also contraindicated in patients who have previously demonstrated hypersensitivity to it or other sulfonamide-derived drugs.

### **WARNINGS**

Bendroflumethiazide should be used with caution in severe renal disease. In patients with renal disease, thiazides may precipitate azotemia. Cumulative effects of the drug may develop in patients with impaired renal function.

Thiazides should be used with caution in patients with impaired hepatic function or progressive liver disease, since minor alterations of fluid and electrolyte balance may precipitate hepatic coma.

Thiazides may be additive or may potentiate the action of other antihypertensive drugs. Potentiation occurs with ganglionic or peripheral adrenergic blocking drugs.

Sensitivity reactions may occur in patients with a history of allergy or bronchial asthma.

The possibility of exacerbation or activation of systemic lupus erythematosus has been reported.

**Usage in Pregnancy.** Thiazides cross the placental barrier and appear in cord blood. The use of thiazides in pregnant women requires that the anticipated benefit be weighed against possible hazards to the fetus. These hazards include fetal or neonatal jaundice, thrombocytopenia, and possibly other adverse reactions which have occurred in the adult.

**Nursing Mothers.** Thiazides appear in breast milk. If use of the drug is deemed essential, the patient should stop nursing.

### **PRECAUTIONS**

Periodic determination of serum electrolytes to detect possible electrolyte imbalance should be performed at appropriate intervals.

All patients receiving thiazide therapy should be observed for clinical signs of fluid or electrolyte imbalance; namely, hyponatremia, hypochloremic alkalosis, and hypokalemia. Serum and urine electrolyte determinations are particularly important when the patient is vomiting excessively or receiving parenteral fluids. Medication such as digitalis may also influence serum electrolytes. Warning signs, irrespective of cause, are: dryness of the mouth, thirst, weakness, lethargy, drowsiness, restlessness, muscle pains or cramps, muscular fatigue, hypotension, oliguria, tachycardia, and gastrointestinal disturbances such as nausea and vomiting.

Hypokalemia may develop with thiazides as with any other potent diuretic, especially with brisk diuresis, when severe cirrhosis is present, or during concomitant use of corticosteroids or ACTH.

Interference with adequate oral electrolyte intake will also contribute to hypokalemia. Digitalis therapy may exaggerate metabolic effects of hypokalemia especially with reference to myocardial activity.

Any chloride deficit is generally mild and usually does not require specific treatment except under extraordinary circumstances (as in liver disease or renal disease). Dilutional hyponatremia may occur in edematous patients in hot weather; appropriate therapy is water restriction, rather than administration of salt except in rare instances when the hyponatremia is life threatening. In actual salt depletion, appropriate replacement is the therapy of choice.

Hyperuricemia may occur or frank gout may be precipitated in certain patients receiving thiazide therapy.

Insulin requirements in diabetic patients may be increased, decreased, or unchanged. Latent diabetes mellitus may become manifest during thiazide administration.

Thiazide drugs may increase the responsiveness to tubocurarine.

The antihypertensive effects of the drug may be enhanced in the postsympathectomy patient.

Thiazides may decrease arterial responsiveness to norepinephrine. This diminution is not sufficient to preclude effectiveness of the pressor agent for therapeutic use. If emergency surgery is indicated, preanesthetic and anesthetic agents should be administered in reduced dosage.

If progressive renal impairment becomes evident, as indicated by a rising nonprotein nitrogen or blood urea nitrogen, a careful reappraisal of therapy is necessary with consideration given to withholding or discontinuing diuretic therapy.

Thiazides may decrease serum PBI levels without signs of thyroid disturbance.

### **ADVERSE REACTIONS**

**Gastrointestinal System:** anorexia, gastric irritation, nausea, vomiting, cramping, diarrhea, constipation, jaundice (intrahepatic cholestatic jaundice), and pancreatitis.

**Central Nervous System:** dizziness, vertigo, paresthesia, headache, and xanthopsia.

**Hematologic:** leukopenia, agranulocytosis, thrombocytopenia, and aplastic anemia.

**Dermatologic-Hypersensitivity:** purpura, photosensitivity, rash, urticaria, and necrotizing angitis (vasculitis, cutaneous vasculitis). **Cardiovascular:** orthostatic hypotension may occur and may be aggravated by alcohol, barbiturates or narcotics. **Other:** hyperglycemia, glycosuria, occasional metabolic acidosis in diabetic patients, hyperuricemia, allergic glomerulonephritis, muscle spasm, weakness, and restlessness.

Whenever adverse reactions are moderate or severe, thiazide dosage should be reduced or therapy withdrawn.

### **DOSEAGE AND ADMINISTRATION**

Therapy should be individualized according to patient response. This therapy should be titrated to gain maximal therapeutic response as well as the minimal dose possible to maintain that therapeutic response.

**Diuretic:** The usual dose is 5 mg. once daily, preferably given in the morning. To initiate therapy, doses up to 20 mg. may be given once daily or divided into two doses. A single daily dose of 2.5 to 5 mg. should suffice for maintenance.

Alternatively, intermittent therapy may be advantageous in many patients. By administering the preparation every other day or on a three to five day per week schedule, electrolyte imbalance is less likely to occur; however, the possibility still exists.

In general, the lowest dosage that achieves the therapeutic response should be employed.

**Antihypertensive:** The suggested initial dosage is 5 to 20 mg. daily. Maintenance dosage may range from 2.5 to 15 mg. per day, depending on the individual response of the patient. When the diuretic is used with other antihypertensive agents, lower maintenance doses for each drug are usually sufficient.

### **STORAGE**

Store at room temperature; avoid excessive heat.

### **HOW SUPPLIED**

2.5 mg. tablets in bottles of 100, 5 mg. tablets (scored) in bottles of 100 and 1000, and 10 mg. tablets (scored) in bottles of 100.

**SQUIBB<sup>®</sup>**





# Jesse Norwood cures the acute claim.

You've got enough to do without getting bogged down filing a claim. So when you get one with complications, call in a specialist. A Blue Cross professional relations person like Jesse Norwood.

Jesse is one of eleven health insurance problem solvers we've got in areas throughout the state.

There when you need them.

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**Blue Cross  
Blue Shield**  
of Alabama

*A unique hospital specializing in treatment of...*

## ALCOHOLISM DRUG ADDICTION

In this restful setting away from pressures and free from distractions, the Willingway staff, with understanding and compassion, carries out an intensive program of therapy based on honesty and responsibility. The concepts and methods are original, different and have been highly successful for fifteen years.

John Mooney, Jr., M.D., Director  
Dorothy R. Mooney, Associate Director



# Willingway Hospital

311 JONES MILL RD., STATESBORO, GA. 30458 TEL. (912) 764-6236

ACCREDITED BY THE J. C. A. H.

Is there a tablet containing only  
an expectorant and only  
Glyceryl Guaiacolate? **YES!**

1. Patient acceptable tablet dose.
2. Single entity expectorant.
3. Measured tablet dose.
4. Sugar-free tablet.

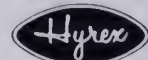
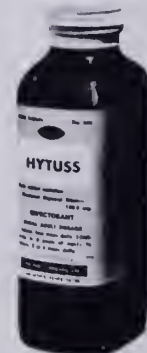
An identifiable white, scored tablet which significantly stimulates the secretion of respiratory tract fluid.

# HYTUSS TABS

(GLYCERYL GUAIACOLATE 100mg.)

**Composition:** Each sugar-free compressed tablet contains glyceryl guaiacolate 100mg. **Action and Use:** This preparation utilizes the effective expectorant action of glyceryl guaiacolate which significantly stimulates the secretion of respiratory tract fluid. The increased flow of less viscid fluid favors expectoration and has a demulcent effect on the tracheobronchial mucosa. The primary usefulness of Hytuss Tabs is to promote the change from a dry, unproductive cough to a productive cough. Hytuss is therefore useful in treating coughs due to the common cold, bronchitis, laryngitis, tracheitis, pharyngitis, influenza and the measles. The expectorant action of Hytuss may also provide symptomatic relief in some chronic respiratory disorders when the patient experiences spasms of dry nonproductive coughing. **Precautions:** Extremely large amounts may cause nausea and vomiting. **Administration and Dosage:** Adults—1 tablet four times daily. Children—6 to 12 years of age; ½ tablet 3 or 4 times daily. **HOW SUPPLIED:** White, scored, sugar-free, tablet in bottles of 100 - 1,000 - 5,000. **Product Identification Mark:** Hy. **Literature Available:** On request.

Available through all drug wholesalers.



HYREX COMPANY  
832 South Cooper  
Memphis, Tenn. 38104



# Coke adds life to... those special moments.



*June 2 2 AM Me! Cramming for  
Inorganic Chemistry finals.  
Man was I beat!*



*Sunday, May 2: My first date  
with Jan at the lake.*



*May 26: Inter-Fraternity Council  
Championship. We won 7-6!*



*June 15: Today, I graduated!*

## Auxiliary

### CONVENTION NOTES



At state convention an excellent film, Walt Disney Productions' "VD Attack" was shown auxiliary members by Mrs. Lind Burks, Health Educator, Mobile Board of Health. Mrs. Burks then informed us about the "Sudden Infant Death Syndrome." (Perhaps this Public Service Act Program will be extended, because in his recent letter to Senator Edward Kennedy, Chairman of the Subcommittee on Health and Scientific Research, Dr. Sammons, Executive Vice President, AMA, stated that the AMA supported this program extension.) Mrs. Burks also showed the moving "Story Of Jay," a film produced by the Medical Society of Mobile County about a tragic diving accident in Mobile Bay. Everyone who sees this film will think twice about diving into water of unknown depth. Last year in Mobile County alone, there were fifteen diving accidents. This film is available from Mobile or MASA and should be shown by societies and auxiliaries throughout the state.

Sometimes the only state officer that MASA members are aware of is the president of A-MASA. Therefore, I'd like you to know the outstanding officers elected and appointed for 1977-1978. They are:

President Elect: Mrs. Aubrey Terry, Russellville, Franklin Co.

First Vice-President: Mrs. Eugene Bradley, Centre, Cherokee Co.

District Vice-Presidents:

NE: Mrs. Oscar Maxwell, Huntsville, Madison Co.

NW: Mrs. Wilfred Yeargan, Tuscaloosa, Tuscaloosa Co.

SE: Mrs. Rufus Lee, Dothan, Houston Co.

SW: Mrs. Leland Edmonds, Mobile, Mobile Co.

Recording Secretary: Mrs. Charles Howell, Decatur, Morgan-Lawrence County.

Treasurer: Mrs. J. E. Dunn, Jr., Wetumpka, Elmore County.

Corresponding Secretary: Mrs. George Davis, Mobile, Mobile Co.

Finance: Mrs. James Stamm, Mobile, Mobile Co.

Historian: Mrs. Leonard Traveis, Mobile, Mobile Co.

Parliamentarian: Mrs. Gilder Wideman, Birmingham, Jefferson Co.

Mrs. Leonard Traveis, Mrs. James Welter, and their Mobile Convention Committee are to be congratulated for the excellent state convention.

*Helene*

Mrs. John S. Taylor  
President

## BRIEF SUMMARY OF PRESCRIBING INFORMATION

**ANTIMINTH®** (pyrantel pamoate)

### ORAL SUSPENSION

**Actions.** Antiminth (pyrantel pamoate) has demonstrated anthelmintic activity against *Enterobius vermicularis* (pinworm) and *Ascaris lumbricoides* (roundworm). The anthelmintic action is probably due to the neuromuscular blocking property of the drug.

Antiminth is partially absorbed after an oral dose. Plasma levels of unchanged drug are low. Peak levels (0.05-0.13 µg/ml) are reached in 1-3 hours. Quantities greater than 50% of administered drug are excreted in feces as the unchanged form, whereas only 7% or less of the dose is found in urine as the unchanged form of the drug and its metabolites.

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The drug has not been extensively studied in children under two years; therefore, in the treatment of children under the age of two years, the relative benefit/risk should be considered.

**Precautions:** Minor transient elevations of SGOT have occurred in a small percentage of patients. Therefore, this drug should be used with caution in patients with preexisting liver dysfunction.

**Adverse Reactions.** The most frequently encountered adverse reactions are related to the gastrointestinal system.

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# To Treat Or Not To Treat Hypertension In The Aged

By  
Thomas W. Sheehy, M.D.\*

## INTRODUCTION

The excellent studies of Hamilton et al, Wolff, and Lindeman, and the three reports of the Veterans Administration Cooperative Group have shown rather conclusively that untreated diastolic hypertension (i.e., a diastolic pressure of 105 mm Hg or above) in the young and middleaged is associated with a significant increase in morbidity and mortality which can be decreased by appropriate antihypertensive therapy<sup>1-5</sup>. Few would disagree with these findings or deny the value of antihypertensive treatment. Recently, however, reports have begun to appear warning of the dangers of injudicious treatment of hypertension in the aged and claiming that antihypertensive therapy has no effect on mortality in the over 60 age group<sup>6-8</sup>.

It is true that the beneficial effects of antihypertensive therapy are not as clear in the aged. Until recently, the dividing line between normotension and hypertension was not certain; there was little information on the natural course of untreated hypertension in the aged and no concrete evidence that treatment reduced either morbidity or mortality. Even the complications of antihypertensive therapy were not too well documented in the aged; aged being defined as 65 years or older.

This report attempts to clarify some of the above issues and to define a rational approach to treatment of hypertension in the aged.

## NORMAL BLOOD PRESSURE

Pickering<sup>9</sup> has emphasized that blood pressure levels currently accepted as diagnostic of hypertension are artifacts<sup>9</sup>. Figure 1 shows the blood pressure levels proposed by different investigators to separate the normotensive from the hypertensive individual<sup>10-15</sup>. In each, the dividing line between hypertension and normotension differs and there is no evidence to prove that any particular level is the correct one. For this reason, the World Health Organization has defined hypertension as "the existence of a systolic blood pressure greater than 160 mm Hg and a diastolic blood pressure in excess of 90 mm Hg in the resting state"<sup>7</sup>.

Certain facts are known about the arterial blood pressure. It is influenced by emotions, cold, and exercise, as well as environmental factors. It may fall significantly during sleep. Everyone, including the hypertensive patient,

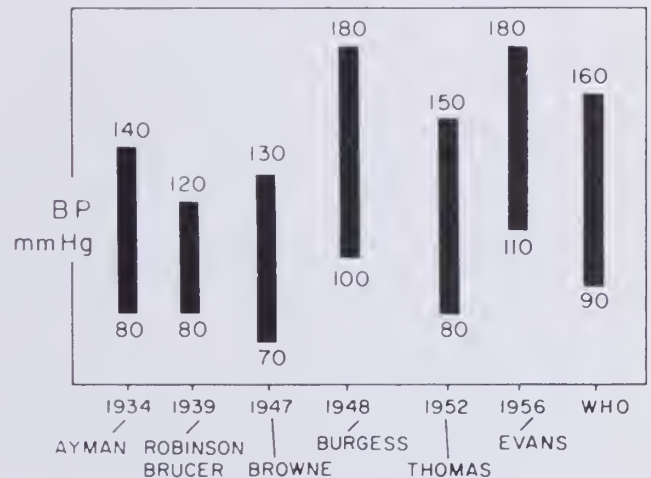


Figure 1—Ranges of normal arterial blood pressures.

has relatively wide swings in their blood pressure levels<sup>9</sup>. Over 30 percent of patients have blood pressure levels recorded in the physician's office that are higher than those recorded in their home. Pickering likens this reaction to the "defense reflexes of Pavlov", wherein familiarity weakens the defense reflex and eventually leads to its extinction. Most likely, this reflex is responsible for "labile hypertension", a condition which must not be mistaken for true hypertension. Hence, the need to make repeated observations of the blood pressure before labelling any individual, young or old, as hypertensive.

## BLOOD PRESSURE CHANGES WITH AGE

It has been stated that the systolic blood pressure rises with age, the rate of rise differing from individual to individual, and that the diastolic blood pressure level remains essentially unchanged with age.

Proof for this statement rests on several studies of blood pressure levels in the healthy. After studying 5,727 healthy, non-institutionalized individuals, Master and Lasser concluded that the upper limits of normal for arterial blood pressure are 160/100 mm Hg for aged men and 180/90 mm Hg for aged women<sup>16</sup>. Silver and Katz reached a similar conclusion<sup>17</sup>.

Anderson and Cowan studied the arterial blood pressure in 374 men and 254 women in relation to age and sex<sup>18</sup>. All were carefully screened for health and most were within 24 percent of their ideal body weight. None were obese. In their study, mean systolic blood pressure levels for men increased from 153 ( $\pm$  23) mm Hg in those 60 to 64 years

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TABLE 1

CASE	AGE	B/P PRETREATMENT		B/P ADMISSION	SYMPTOMS	DRUG
		MM HG				
2	64	170/100		80/50	Orthostatic hypotension; drowsy-confused	Lasix Methyl-dopa
3	72	160/100		100/70	Dizzy, blurred vision, orthostatic hypotension	Methyl-dopa Hydrochlor- thiazide
4	75	190/115		90/50	Incontinent, unable to walk, confused	Quanethi- dine, Lasix
5	83	186/106		100/60	Incontinent, confused; dizzy; unable to walk	Reserpine Lasix

old to 168 ( $\pm$  23) mm Hg in those 80 to 89 years old, and from 164 ( $\pm$  22) mm Hg to 182 ( $\pm$  20) mm Hg for women in the same age categories. In contrast, mean diastolic pressures showed little variation with age or sex in individuals 60 to 89 years of age. The mean diastolic pressure for 60-64 year old men was 85 ( $\pm$  8) mm Hg, and 88 ( $\pm$  8) mm Hg for men aged 80 to 84 years. Mean diastolic pressures for women in the same age groups were 85 ( $\pm$  8) mm Hg and 87 ( $\pm$  10) mm Hg, respectively. The investigators concluded that the upper limit of normal for the diastolic pressure in both sexes was 103 mm Hg. In 1971-72, the National Health Survey also evaluated 6,525 subjects between 18 and 74 years of age to determine the normal limits for arterial blood pressure. Arterial blood pressures averaged 135/86 mm Hg for individuals age 45 to 59 years and 148/85 mm Hg for individuals aged 60 to 74 years<sup>19</sup>. More recently, Babu and his associates and Stamler et al confirmed the findings of Cowan and Anderson<sup>20,21</sup>.

It is now accepted that (1) the mean systolic blood pressure rises 20-40 mm Hg with age in both sexes; (2) the mean systolic blood pressure is higher for women than men at all ages; and (3) the diastolic blood pressure is not influenced significantly by either age or sex and ranges between 70 and 100 mm Hg in the aged.

#### HYPERTENSION AND LIFE-EXPECTENCY IN THE AGED

The effect of hypertension on the life expectancy of the aged hypertensive patient has been studied but with differing results. Pickering claims that life expectancy decreases in each age group and for each sex as the arterial blood pressure rises. Using life table analysis, he showed that life expectancy was reduced from 4 to 6 years in mildly hypertensive men and women (150/100 mm Hg), aged 55. Interestingly enough, even with this reduction, life expectancy was still 18 and 23 years respectively for men and women age 55 years.

Utilizing a similar approach, Fry came to a different conclusion<sup>22</sup>. He studied patients with untreated hypertension for 20 years and found that the incidence of hypertension decreased after age 70. He also observed that over one-half of his patients developed their hypertension after reaching age 60. In his analysis, the Observed to Expected (O-E) death rates were higher than expected in the young but lower than expected in the over 60 year groups. O-E death ratios were 4:1 in individuals age 40 to

49, but only 1:1 for those age 60 to 69 years of age and 0.9:1 for individuals 70 years or over. Fry concluded that the risk of hypertension varies with the age in which it is first recognized and that while hypertension poses a considerable risk to the life and health of the young, it adds little risk to either for the aged. Even so, the major cause of death in Fry's patients were cardiac disease, cerebral vascular accident, and renal failure; the same entities that are responsible for most deaths in the younger hypertensives. Obviously, there is need for further study to determine the effect of hypertension on the life expectancy of the aged and to ascertain if treatment improves life expectancy.

#### ETIOLOGY OF HYPERTENSION

Essential hypertension is the major cause of elevated blood pressure in both young and old. In older individuals, hypertension is rarely, if ever, caused by a distinct entity and it seldom develops into a malignant stage. Endocrine lesions, such as pheochromocytoma or aldosterone producing tumors are unusual. Occasionally, renal arterial lesions are responsible for hypertension. Rapid onset of hypertension in older persons should always alert the physician to the possibility of pyelonephritis.

#### SOME ADVERSE EFFECTS OF TREATMENT IN THE AGED

Four major physiologic changes occur in the aged. These include (1) a decreased appreciation of pain; (2) impaired balance due to altered postural mechanisms; (3) faulty temperature control; and (4) a diminished sensation of thirst. These changes, plus those induced by antihypertensive agents, must always be taken into consideration when antihypertensive treatment is prescribed.

Case 1 is a primary example of the dangers of injudicious antihypertensive therapy. This 72-year-old white male was admitted to the hospital with confusion. His physical examination was unremarkable except it was noted that he had a blood pressure of 160/100 mm Hg. Laboratory studies, including electrolyte levels, creatinine, and BUN were normal.

A well-meaning physician prescribed Lasix, 40 mgm daily, and Aldomet, 200 mgm daily, for the patient's hypertension. These medications were continued during a neurologic evaluation. Twenty-one days later, the patient



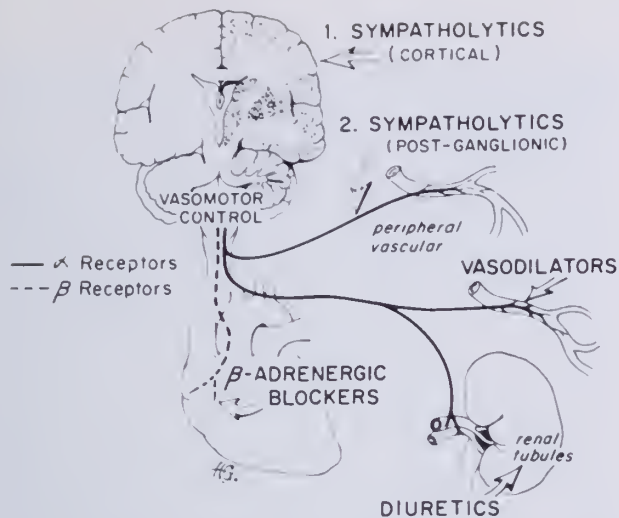


Figure 2—Sites of action of the major antihypertensive agents.

complained of a cold right leg. It was found to be pulseless below the knee. The patient was also dehydrated, a fact confirmed by laboratory studies which showed a serum sodium level of 118 mEq/L, a serum creatinine of 9.8 mg %, and a BUN of 104 mgm %. Amputation of the right foot was necessary.

After surgery, the patient was again given antihypertensive medications. Unbelievably, a similar series of events ensued with resultant loss of the left leg below the knee.

Table 1 shows the complications that occurred in four other symptomless patients, aged 64 to 83, given antihypertensive therapy. Their pretreatment systolic pressures ranged from 160 to 190 mm Hg and their diastolic pressures from 100 to 115 mm Hg. After 3 to 16 days of therapy, all four patients were admitted as emergencies. At that time, their systolic pressures ranged from 80 to 100 mm Hg and their diastolic pressures from 50 to 70 mm Hg. As result of therapy, all four patients had experienced symptoms of postural hypotension and three were housebound. Three developed urinary incontinence and two had significant nocturia. Two had become disoriented. All were severely dehydrated and had prerenal azotemia on admission.

Antihypertensive drugs are potent agents that can seriously impair the quality of life in the aged. Cases 2 to 5 emphasize two of the most commonly encountered therapeutic complications, i.e., volume depletion and mental obtundation. Jackson et al reported six aged patients who became unconscious within one week of the start of the antihypertensive therapy. One became hemiplegic and all had become housebound<sup>8</sup>.

Case 6 emphasizes another side-effect. This 69-year-old physician developed fever, 105°F, chills and leucopenia, 3000 cc mm. A past history of rheumatic heart disease and mitral valve replacement five years before, plus his current symptoms and findings, led to diagnostic consideration of bacterial endocarditis, blood dyscrasia, or drug effect. Discontinuation of Aldomet led to complete cessation of

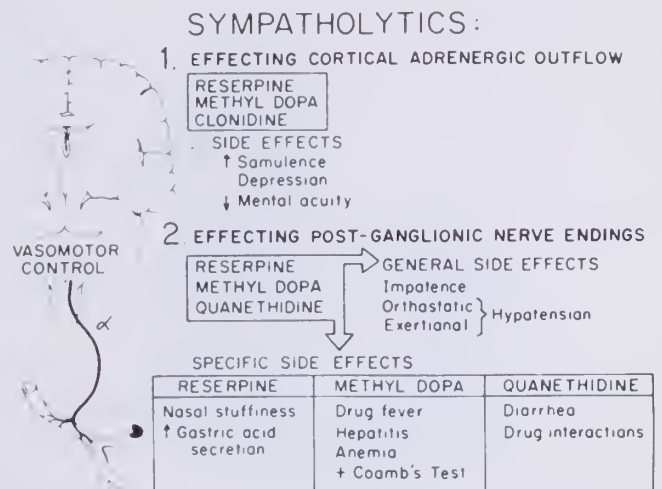


Figure 3—Side effects of central and peripheral acting sympatholytic agents.

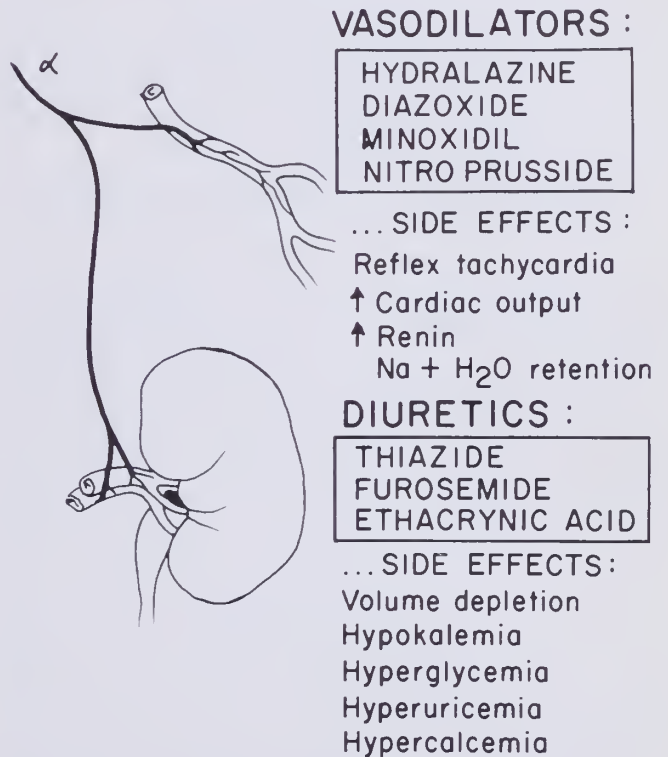


Figure 4—Side effects of vasodilators and diuretics.

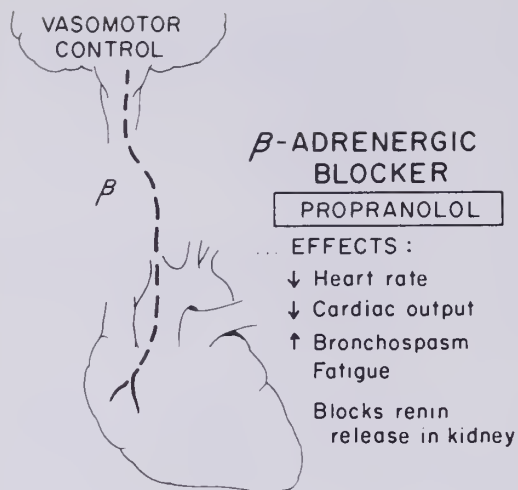


Figure 5—Actions of the B-adrenergic blocker, propranolol.

this patient's symptoms within two days and a return of his white count to normal within four days.

Antihypertensive therapy should be prescribed for the asymptomatic hypertensive older patient only after consideration is given to the patient's cerebral, renal, and cardiac status and to the severe adverse effects of these drugs. Otherwise, treatment may cause more problems than the hypertension.

#### SIDE EFFECTS OF ANTI-HYPERTENSIVE AGENTS

Figures 2 to 5 show the major side effects of currently used antihypertensive agents and their site of action.

*Sympatholytic* agents, such as reserpine, methyldopa, guanethidine, can have profound effect in the aged. Reserpine and methyldopa cross the blood brain barrier and deplete norepinephrine stores in the central nervous system. Their central action leads to orthostatic hypotension, decreased mental acuity, and depression, while their peripheral action causes sexual dysfunction, fluid retention, nasal stiffness, dry mouth, diarrhea, and increased gastric acid secretion<sup>23-24</sup>.

Methyldopa causes less orthostatic hypotension than reserpine but it has other side effects not shared by reserpine or guanethidine, namely a tendency to produce drug fever, hepatitis, a positive Coombs test, and occasionally, hemolytic anemia. It also can lead to lactation in both males and females<sup>25-27</sup>.

Guanethidine does not cross the blood barrier in significant amounts, hence, its central nervous system side effects are less severe. Indeed, their absence has led some physicians to favor this drug over other sympatholytics. However, guanethidine has other serious side effects. It often decreases the cardiac output and lowers systolic pressure more than diastolic pressure. It interacts with tricyclic antidepressants, such as Elavil and Trival, with certain phenothiazines and with theophylline containing compounds. Amphetamine, for example, not only competes with guanethidine at nerve endings, but also causes its release from the site of action<sup>28,29</sup>.

The new sympathetic blocking agent, clonidine, induces sedation similar to that observed with reserpine and

methyldopa and it may cause rebound hypertension if it is stopped abruptly. However, it does not cause significant sexual dysfunction or orthostatic hypotension.

Propranolol blocks beta-adrenergic receptors. It causes a sustained but moderate fall in blood pressure, decreases the cardiac output and lowers plasma renin levels. These effects are brought about without significant postural hypotension. Hence, propranolol can be a valuable agent for treatment of hypertension in the aged individual. Its danger lies in its ability to precipitate cardiac failure or bronchospasm in predisposed patients<sup>30</sup>. Sudden withdrawal of propranolol can also cause unstable angina pectoris, arrhythmias, and myocardial infarction.

Vasodilator agents, such as hydralazine, diazoxide, minoxidil, and nitroprusside act by reducing arteriolar resistance. Hence, they lower blood pressure in both the upright and supine positions. Both hydralazine and diazoxide increase cardiac output and are contraindicated in the presence of congestive heart failure. Propranolol has been prescribed with hydralazine to decrease cardiac output and to offset the reflex tachycardia associated with hydralazine. This vasodilator can also induce a lupus-like syndrome in slow acetylators.

Diazoxide and nitroprusside are reserved for the treatment of hypertensive emergencies. Both are given parenterally and if given too rapidly cause severe hypotension. In the aged as in the young, it is best to give diazoxide in small increments of 100 mgm intravenously every 5 minutes rather than as a single bolus of 300 mgm<sup>23</sup>. With this approach, there is less chance of inducing severe hypotension.

Nitroprusside is my favorite for the emergency treatment of hypertension in young and old. It has few side effects. Its onset of action is rapid, 60 seconds; it reaches peak activity within 1 to 2 minutes and it has a duration of action of only 3 to 5 minutes. Fifty mgms of nitroprusside, mixed freshly with 500 ml of D5W, provides a concentration of 100 micrograms/ml. The parenteral dose is 1 microgram/kilogram/minute; therefore, a 70 kilogram man would receive 0.7 ml/min<sup>31</sup>.

Nitroprusside can be titrated so that the desired blood pressure level is achieved readily. It is the drug of choice for treating hypertensive encephalopathy associated with congestive heart failure. However, caution must be exercised with its use. It is *absolutely essential* that blood pressure readings be taken every 1 to 2 minutes during the stabilization process. Nitroprusside *should never be used* without constant supervision.

*Oral diuretics* may cause potassium depletion, hyperglycemia, hyperuricemia, and hypercalcemia. In the young, prerenal azotemia rarely, if ever, occurs without pre-existing renal disease but in the elderly person, volume depletion alone can induce prerenal azotemia. Most likely, the effect of aging on the kidney and loss of the sensation of thirst contributes to this tendency.

#### TREATMENT

Management of hypertension in the aged requires a personal approach. In my opinion, there are few indications for vigorous treatment of hypertension in the over-65 year



group. Obvious exceptions are the presence of malignant hypertension or an endocrine or renal lesion that is correctable. Heart failure, secondary to hypertensive heart disease, is another indication for treatment. Here the cardiac failure is treated with diuretics and digoxin. Antihypertensive therapy is prescribed if these measures fail to lower the diastolic pressure to a reasonable level. Treatment is also prescribed for those without heart failure who have diastolic blood pressures above 120 mm Hg.

The high incidence of systolic hypertension among the aged has led some to conclude that, like diastolic hypertension, it, too, should always be treated and for the same reasons. However, elevated systolic pressures up to 200 mm Hg have been observed in healthy patients over 65 years. After acknowledging the existent controversy concerning the treatment of systolic hypertension, Braunwald concludes that "at present, treatment is not recommended."<sup>32</sup>

When antihypertensive therapy is indicated in the aged, the goal should be a reduction in diastolic blood pressure without causing organ impairment<sup>33,34</sup>. Agents, such as thiazides, should always be tried first, for their action is milder and more sustained than the more potent "loop" diuretics. Thiazides, also, enhance the action of sympatholytic agents and are less likely to cause a serious water or electrolyte imbalance. Propranolol should be added to the treatment regimen if thiazides alone are inadequate to control the blood pressure. This drug is especially useful with patients who have coronary artery disease, arrhythmias, or both, providing there is no evidence of asthma or heart failure. When a third drug is indicated, hydralazine or methyldopa may be tried. Hydralazine is a vasodilator that can be used effectively with propranolol, the latter acting to offset the increased heart rate and work induced by the former. Central and peripheral sympatholytic agents should seldom be used in combination because of the tendency to heighten their mutual side effects.

Regardless of which drug or combination of drugs is used, emphasis should be placed on "treatment of the patient and not the blood pressure." This necessitates consideration of potential side effects of each agent and their capacity to seriously hamper the life style or to harm the aged. It also entails the necessity for frequent and careful checks on the mental acuity of the patient, evaluation of the blood pressure in the standing position to prevent "drop attacks", and the avoidance of dehydration with its inherent dangers.

Antihypertensive therapy is contraindicated in patients with organic brain disease or cerebral vascular disease of any severity. Caution should also be exercised in prescribing antihypertensive drugs for those with evidence of a depressive illness. Most importantly, antihypertensive therapy should never make the aged patient worse than before treatment. ●

## REFERENCES

References available upon request.

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# **Ulcerative Colitis**

**MALCOLM BROWN, M.D.**

## **I. Introduction**

Ulcerative colitis is a chronic inflammatory disease affecting the mucosa of the colon, limited to the surface epithelium of the colon; it primarily affects the rectum and rectosigmoid region, but it can extend *diffusely* proximally to the cecum. This contrasts with granulomatous colitis (Crohn's disease), manifested by transmural bowel inflammation which may affect *segments* of large and small bowel, with intervening areas of normal bowel.

Ulcerative colitis is usually characterized by bloody diarrhea and crampy abdominal pain, but the spectrum of disease can vary widely from a virtually asymptomatic course to a fulminant course that comes on explosively with many systemic symptoms of toxicity.

## **II. Epidemiology**

It is difficult to accurately estimate the number of new cases per year or the number of existing cases for several reasons: 1) The variable clinical spectrum; there is not universal agreement as to whether the very mild, localized form is actually ulcerative colitis or Crohn's colitis, or if indeed they are separate entities. 2) Many of the very mild cases may not come to the attention of a physician, and they may not be diagnosed as ulcerative colitis if they do. 3) A highly mobile society, as we have in the United States, may create some overlap in population's studied. 4) Variability in a certain population group's access to medical care and hospitalization may cloud the epidemiologic picture (i.e., the Jewish population may be more inclined to seek medical care than the Black population, hence more cases of colitis found in Jews than Blacks).

Despite these difficulties, several epidemiological studies have been performed over the past fifteen to twenty years in Oxford, England, Norway, Baltimore, Maryland, and Rochester, Minnesota (Mayo Clinic).<sup>1,2,3</sup>

G. Jones and Myren analyzed the figures for Norway from 1956 to 1963 and found an annual incidence of 2.0 new cases hospitalized/100,000 population, the lowest reported incidence rate of any of the studies.<sup>4</sup>

Acheson and Evans made a study of ulcerative colitis in the Oxford area from 1951 to 1960. In this study they based their rates on records from outpatient clinics, physicians offices, and hospital records: They found an average annual incidence of 6.5/100,000 (both inpatients and outpatients).<sup>5</sup>

Monk and Mendeloff made a study of patients hospitalized in the Baltimore area from 1960 to 1963. They found that the average incidence of patients hospitalized for the first time for ulcerative colitis was 4.6/100,000

(white patients only, 20 years or older). The incidence of first hospitalizations for ulcerative colitis among the black population was much lower: 1.4/100,000.<sup>2</sup>

There have been reports that inflammatory bowel disease is more common among Jewish people. Monk and Mendeloff addressed this question specifically and found an annual first hospitalization incidence among Jews of 10/100,000 while the incidence among non-Jews was 3.8,<sup>2</sup> suggesting a much higher incidence among Jews. This difference in incidence of Jews vs. non-Jews was felt to be significant, not merely a function of better medical care and more intensive diagnostic work-up for Jews.

Still another study involving the Mayo Clinic, concerned itself with a 30 year study of Ulcerative Colitis in Olmsted County, 1935-1964. They found an average annual incidence of 7.2/100,000 of chronic or chronic or recurrent proctitis and typical ulcerative colitis. The incidence increased to 9.7/100,000 if cases of transient proctitis or asymptomatic patients were included.<sup>1</sup>

These data are summarized in Table 1.

Table 2 summarizes the incidence of first hospitalization based on Jewish vs. non-Jewish in the Baltimore study.

Discussion: A number of conclusions were drawn from these studies, especially by Monk and Mendeloff in Baltimore:<sup>2</sup>

1) Ulcerative colitis occurs more often in Jewish than non-Jewish people, based on rate. It also occurs more in white than non-white.

2) Female to male ratio in all studies except Mayo Clinic study was 1:3 female/1.0 male or about 60% female. The Mayo study showed a 1:3/1.0 male preponderance.

3) Baltimore study patients with ulcerative colitis occupied definitely higher socioeconomic positions than matched controls. On the average, they had two years more formal education than matched controls.

4) Age of onset of disease was earlier in Jews than non-Jews.

5) Ulcerative colitis tended to occur more in people of urban rather than rural origins.

## **III. Familial Factors**

Over the past forty years clinical descriptions of more than one case of ulcerative colitis appearing in the same family have appeared in considerable number.

Sloan et al in 2000 cases found a 1.3% incidence of a positive family history.<sup>6</sup> Kirsner and Spencer found a 5.2% of positive family history among 1084 patients with ulcerative colitis.<sup>7</sup> Table 3 summarizes their findings.

These relatively high incidences contrast with the very slight probability of more than one person in a family developing ulcerative colitis by chance alone: something in the order of one in a million!

There have been three reported cases of inflammatory bowel disease (ulcerative colitis) occurring in monozygotic twins; the probability of one case occurring by chance alone being one in six billion persons (based on estimated incidence of monozygotic twin birth of 1:270, and an estimated prevalence of ulcerative colitis of 100:100,000 population).

Almy and Sherlock in 1966 reported on a number of



TABLE 1

Location	Male	Female	Total
Norway	2.0	2.1	2.1
1st hospitalization			
Baltimore (whites)	3.9	5.2	4.6
1st hospitalization			
Oxford, England (average annual incidence)	5.8	7.3	6.5
Rochester, Minnesota			7.2
Average annual incidence			

Incidence rates are per 100,000 population

familial associations: They found a much higher incidence of occurrence in mother and son, and in siblings than in mother-daughter or father-son or father-daughter. Table 4 summarizes their findings.<sup>8</sup>

From their data, they concluded that ulcerative colitis occurs more frequently in siblings and even in cousins than in spouses — apparently even when they had been separated geographically when they were growing up. To them, this suggested a greater importance of common heredity than common environment.

They also pointed out that the association of inflammatory bowel disease with other diseases felt to have genetic influences, seemed to suggest a common hereditary disposition. An example offered was the association of ulcerative colitis with ankylosing spondylitis which has been shown to be related to an autosomal dominant gene.

The fact that the clinical onset of either disease in an individual affected with both may precede the other by as much as 10-12 years suggests a common genetic predisposition, rather than one being the cause of the other.

Still another, more recent study by Singer, et al found in a series of patients with inflammatory bowel disease numbering 646, 113 of them gave evidence of inflammatory bowel disease in their families, a prevalence of 17.5%. 150 of these 646 patients were selected at random, and 150 healthy matched controls were selected and compared as to family history of inflammatory bowel disease.

In the group of 150 with inflammatory bowel disease 11% of them gave a positive family history for inflammatory bowel disease, whereas only 4% of the matched controls gave a positive family history.<sup>9</sup>

Their study also indicated that the number of Jewish individuals affected with inflammatory bowel disease was disproportionately high. The Jewish patients also had a higher incidence of positive family history.

They also found that the majority of patients developed the disease before age 40, and of those with a positive family history, a larger proportion developed the disease between the ages of 10-19 years of age.

The conclusion reached, in addition to the known fact of increased incidence in Jews was that "from the evidence available, the genetic mechanism if any, likely does not involve either a single dominant or a single recessive gene with complete penetrance." They speculated that if genetic mechanisms were present, they involved a dominant gene

TABLE 2

Males	Rate/100,000 population	
Jews	9.31	Incidence rates are: number of 1st hospitalizations/100,000 population.
Non-Jews (white)	3.40	
Non-white	1.32	
Females		
Jews	16.85	
Non-Jews (white)	4.10	
Non-white	1.51	

TABLE 3

	No. cases	No. with positive history	%
Sloan et al	2000	26	1.3
Kirsner et al	1084	66	5.2

TABLE 4

Relationship	Number
father-son	2
mother-son	21
father-daughter	8
mother-daughter	8
two siblings	43
three or more siblings	5
monozygotic twins	3
dizygotic twins	1
collateral relatives	13
husband and wife	2

with reduced penetrance, or the combined action of multiple genes, or a genetic predisposition, requiring an environmental factor for its clinical expression.<sup>9</sup>

#### IV. Etiology

The cause of ulcerative colitis is not known. Several different factors have been implicated as the causative agent in colitis. Among those causes most prominently mentioned are: emotional factors, immunologic factors, and infection.

First, regarding emotions and ulcerative colitis, it has long been known that the GI tract is often affected by the CNS and by psychologic factors. Ulcerative colitis has been found to be associated with psychic stress; some have related exacerbations of colitis to "object loss," as with the death or separation of a loved one. Some have attempted to characterize the typical ulcerative colitis patient as being immature, overly dependent, indecisive, unable to express emotions, passive aggressive, and oversensitive.

It was found in one study by O'Connor, et al, that psychotherapy over an eight year period of time, had a distinct improvement in symptomatology and proctoscopic appearance after the third year of treatment,<sup>14</sup> suggesting an emotional component to the disease.

A second factor often mentioned, and now appearing to

gain more favor, is an immunologic role in causation of ulcerative colitis. It has been found that circulating lymphocytes from patients with ulcerative colitis are cytotoxic for colon epithelial cells; this is true in all patients with inflammatory bowel disease, regardless of extent of disease, and is not known to occur in any other disease. This cytotoxicity is specific for colon cells, and no other cells — it persists as long as diseased tissue remains, even in remission, and disappears soon after removal of any diseased tissue and reappears when disease reappears in remaining segments of bowel. This phenomenon of cytotoxicity for colonic epithelial cells can be transferred to normal human lymphocytes, apparently in the IgM immunoglobulin.

It has been postulated that the lymphocytes from patients with inflammatory bowel disease have an IgM antibody which is specific for antigen shared by both colon epithelium and certain strains of *E. coli*, since both *E. coli* lipopolysaccharide and colon epithelial antigen will react with this IgM. According to this hypothesis, the resulting Antigen-Antibody complex would stimulate the lymphocytes to release a cytotoxin which affects the integrity of tissue cells, either the bacterial cells or the tissue cells of the colon. Questions not answered yet are: 1) Is the antigen present in fecal flora? 2) Does this cytotoxin cause the tissue injury, or does it activate other agents to cause the bowel inflammation? 3) Is this the primary process that causes the tissue injury of ulcerative colitis?

Regarding the role of infection in ulcerative colitis, the bowel inflammation, the febrile course, the response to sulfa drugs, and the similarity of ulcerative colitis with known infectious colitis, have all led to speculation over the years that some unknown infectious agent was responsible. However, to date, no infectious agent, bacterium, fungus, or virus has been proved to cause ulcerative colitis. The fact that antigens for certain *E. coli* strains are shared with colon epithelium and have pathogenic potential has been discussed earlier.

Other possible etiologies—vasculitis, increased intracolonic pressure causing ischemia of bowel, food allergy, nutritional have all been mentioned, but at present the fact remains that the etiology for ulcerative colitis is not known.

## V. Pathology

The earliest lesion is a degeneration of reticulin fibers just below the mucosal epithelium, with occlusion of the subepithelial capillaries, and infiltration of inflammatory cells occurs in the lamina propria. These cells include polys, lymphocytes, plasma cells, eosinophils, and mast cells. As the inflammatory infiltrate progresses, it extends to the crypts where microabscesses, necrosis of epithelium, and ulceration of the mucosa.

There may be vascular congestion either prior to or as a result of the inflammation, causing a diffuse reddish blush to the mucosa. In more severe or in more chronic colitis, the epithelial cells cease to secrete mucus: the goblet cells are replaced by a cuboidal epithelium secreting no mucus.

The infiltration of lymphocytes and eosinophils and plasma cells begins to thicken the mucosa and submucosa,

to separate the crypts. In more severe cases, the infiltration of cells (the microabscesses coalesce and form small microscopic ulcerations). Sommers found an increased number of mast cells in the inflammatory infiltrate and he suggested that the histamine and proteolytic enzymes released from mast cells contribute to the inflammation and necrosis.

Grossly, the earliest stages of ulcerative colitis present a mucosa with a diffusely red, raw, beefy appearing mucosa. According to Spiro, the mucosa diffusely appears to have been sandpapered. The disease is always diffuse, in an affected area, never patchy.

Almost always the rectum and possibly lower sigmoid area is involved, and if the disease extends proximally, it extends diffusely.

Spiro emphasizes what he considers an important diagnostic finding on sigmoidoscopy. The mucosa may bleed spontaneously, but if it does not, the mucosa will be diffusely red, with loss of the normal network of blood vessels in the rectal mucosa. If swabbed with a cotton swab, the mucosa will show numerous little pinpoint bleeding sites.<sup>10</sup>

In more severe and chronic disease, the mucosa will be diffusely beefy and hyperemic, and small ulcerations may appear — true ulcerations are more common in the proximal large bowel, and are quite uncommon in the rectum. The ulcerations will form "pseudopolyps, which are formed by the excavation of the edematous mucosa by the ulcerations, these pseudopolyps will be very small, uniform, and diffusely scattered. They may exhibit bridging, which is where two pseudopolyps stick together and are epithelialized during healing.

With healing, the inflammatory infiltration decreases, a flattened epithelial cell layer covers the inflammation, colonic crypts reappear, but may be separated by residual inflammatory cells.

In most of the cases, the disease involves the rectum and rectosigmoid region; in about half of the cases it remains confined to the rectum and recto-sigmoid region. In the other half, it extends proximally in a diffuse manner to involve the entire left colon, and possibly more commonly to involve the entire colon from rectum to cecum. Occasionally a few inches of the terminal ileum may be involved, usually superficial involvement. Supposedly this backwash ileitis has no clinical or prognostic significance.

## VI. Clinical Features

The clinical features of ulcerative colitis vary widely from patient to patient, and even in the same patient with the passage of time. The mucosal ulceration and friability will lead to diarrhea and rectal bleeding. In a small percentage of cases, perhaps 15%, the initial attack will be fulminant with acute onset of profuse bloody diarrhea, systemic symptoms of fever, anorexia, toxemia, and peritoneal irritation, and even development of toxic megacolon.

More commonly, the disease is localized to the rectum and rectosigmoid. The disease will usually be of a more mild nature with some increase in bowel movements, possibly some bleeding per rectum, and even more likely



some mild abdominal cramping. One reason for the observation that rectal bleeding is often the first symptom of ulcerative colitis, is that people are more likely to remember rectal bleeding than they are mild diarrhea or loose stools.

More severe disease will manifest itself by the same symptoms, only magnified, along with constitutional symptoms. Diarrhea is almost always present, with urgent call to stool, with tenesmus; the diarrhea is usually watery, may have blood in it, and usually little or no mucus. Bleeding may be absent, a small or moderate amount, or may be quite massive, requiring surgery. Abdominal cramps are often present; usually the cramps are relieved by defecation.

**Constitutional symptoms:** Anorexia and weight loss are commonly associated with active ulcerative colitis, and often may precede an acute attack. When the attack is severe, fever often is associated. Chills are rare but fever while usually 100-102 degrees, may extend up to 104 degrees or 105 degrees. In addition to anorexia, weight loss, and fever, if the disease is severe the patient may have weakness, malaise, and a general feeling of illness. In a few cases, the disease may suddenly take a more fulminant course, the diarrhea becoming more profuse, the abdominal cramps giving way to a more steady, severe generalized abdominal pain, increased fever, tachycardia, abdominal distention and the development of toxic megacolon.

**Clinical course:** The clinical course varies greatly. Some patients have mild disease with localized symptoms, mild diarrhea and rectal bleeding only on occasion and never get worse. In other cases, the initial course may be mild, only to lead to more and worse exacerbations at a later date. Some patients may have a relatively acute, severe attack, then remain relatively free of symptoms for a long time. Others may have a progressively downhill course with exacerbations occurring several times a year, reaching the point that the disease severely cramps the individual's lifestyle. Still others may have an acute fulminant course as their first manifestation, or as a later manifestation, the course being one of severe, toxic symptoms or severe hemorrhage, either of which might require emergency surgery.

**Laboratory:** Anemia frequently accompanies ulcerative colitis. Usually the anemia is secondary to blood loss which may be either acute, with normal indices, or more chronic with evidence of iron deficiency anemia, usually the serum iron is low with a normal or increased TIBC. The ability to absorb iron is usually unimpaired. Treatment consists of blood transfusions, parenteral or oral iron, and efforts to control the activity of the disease.

Occasionally patients will exhibit hemolysis of red cells; they may have a positive direct coombs reaction. There have been instances of red blood cells of ulcerative colitis patients being coated with antibodies, and in at least one instance, the antibodies disappeared within 50 days after total colectomy.<sup>8</sup> Another possible cause for hemolytic anemia is the anemia that occurs secondary to the use of salicylazosulfapyridine (Azulfidine).

Leukocytosis also usually accompanies an exacerbation

TABLE 5

Ulcerative colitis      Controls

Tests with no significant difference between control and colitis patients:

Hbg	13.3	13.7
PCV	42%	43%
Bleeding time (min.)	3.9 min.	3.3 min.
WBC	7,400	5,500
Protime	11.1 sec.	11.9 sec.
PTT	30.2 sec.	31.5 sec.

Tests with significant difference:

Platelets	341,000	212,000
Factor V	129	102
Fibrinogen	427 mg%	310 mg%
Antithrombin III	62 units	88 units

TABLE 6

Serum lytes	Normal	Mild	Severe	No. below normal
Na	133-152	137	126	77
K	3.5-5.5	4.4	4.0	22
Cl	99-108	102	95	60
Mg	1.4-1.9	1.57	1.4	4 of 9

(50 patients)

with white counts usually only moderately elevated, but in severe cases the white count can reach 30,000 to 40,000 with a marked left shift. Increased numbers of eosinophils also are characteristic of ulcerative colitis; the eosinophilia was one of the findings that originally suggested that corticosteroids might be beneficial.

It has been known that thrombocytosis may accompany ulcerative colitis. Bargen and Barker in 1936 first noted an increased tendency to thromboembolic phenomena.<sup>17</sup> Lam, et al, in a study of 24 patients with inflammatory bowel disease contrasted with 34 controls (hospitalized and normal), found a significant increase in platelets, fibrinogen, and factor V, and a significant decrease in the anti-thrombin III protein in patients with ulcerative colitis as compared to the control group.<sup>18</sup> The hemoglobin, white count, protime, PTT, and bleeding time were all similar in the two groups. Table five summarizes their findings, and the possible implications as to increased thrombotic phenomena will be discussed under extracolonic manifestations of ulcerative colitis.

Theurine in ulcerative colitis is usually normal as should be expected. White cells may indicate a urinary tract infection as increased incidence of urinary tract infections is common in ulcerative colitis. Red cells may suggest renal stones, also increased in ulcerative colitis.

Usually the electrolytes are normal unless the diarrhea is severe or protracted, whereupon a significant depletion of sodium, potassium and chloride, and occasionally magnesium may occur. Table 6 summarizes a study by Duthie, in which the levels of Na, K, Cl, and Mg were measured in patients with mild and severe disease.<sup>19</sup>

They felt this increased loss of electrolytes were due to 1) increased losses through chronic diarrhea, and con-

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siderably diminished absorption of fluids and electrolytes in the diseased segments of colon. They estimated that segments of colon affected by severe ulcerative colitis can absorb on the average 5% of the sodium absorbed by normal colon.

Hypoalbuminemia may also be found in more extensive and chronic forms of ulcerative colitis, probably from increased gastrointestinal losses rather than diminished hepatic production.

## VII. Extracolonic manifestations of ulcerative colitis

A number of organ systems other than the colon can be affected in patients with ulcerative colitis. The principal systems involved are the joints, the eyes, and the skin. Also involved less commonly are the liver, the kidneys, and the vascular system.

The arthritis occurring with ulcerative colitis involves three separate entities: 1) a peripheral arthritis resembling rheumatoid arthritis with certain important differences, 2) ankylosing spondylitis, and 3) clubbing of the digits.

Anywhere from 7 to 20% of patients with ulcerative colitis are afflicted with a peripheral arthritis with swelling, redness, and limitation of motion. Often it is monoarticular, involving the larger joints such as the knees or ankles. It is almost never deforming, nor are radiographic changes usually seen. The latex RA test is negative. In general, the clinical course of the arthritis parallels the clinical course of the ulcerative colitis, with flare-ups of arthritis occurring when the colitis flares. This form of arthritis also is seen more often when the patient develops skin lesions. It usually responds to steroid therapy if this is used for treatment of the colitis. If colectomy is performed for treatment of the colitis, this usually brings about a complete remission of the peripheral arthritic symptoms.<sup>20</sup>

The second form of joint disease affecting the patient with ulcerative colitis is ankylosing spondylitis and sacroileitis. This affects the sacro-iliac joints independently of the course of ulcerative colitis; quite often the involvement of the sacro-iliac joint is entirely asymptomatic.

While the incidence of radiographic evidence of sacroiliac involvement (loss of bony outline in the S-I joint, sclerosis of bone, obliteration of bony ankylosis of the S-I joint) can reach 30-35% of patients with ulcerative colitis, especially those with a history of colitis greater than ten years duration, the incidence of clinically disabling spondylitis is rather low. In two series, the incidence of progressive ankylosing spondylitis occurred in 2.5% to 5% of patients with colitis.<sup>21,22</sup>

The spondylitis may precede the clinical onset of ulcerative colitis by many years, and usually proceeds along its clinical course independent of the course of the colitis. In most cases the spondylitis does not improve with improvement of the colitis, nor does it improve after total colectomy.

Another interesting finding associated with the ankylosing spondylitis is the association with the HLA-W27 antigen. In idiopathic ankylosing spondylitis patients, some 90% are W-27 positive whereas only 8% of the normal population are W-27 positive. In a study of 31 patients,

TABLE 7

Clinical presentation	No. of patients	No. W-27 positive
without arthritis	15	0
with peripheral arthritis	8	0
with spondylitis	8	6

Morris and Metzger found that 75% of the colitis patients and spondylitis were positive for the HLA-W27 antigen, whereas none of the patients with colitis and peripheral arthritis, and none of the patients with colitis alone were positive for HLA-W27.<sup>23</sup>

A third type of joint and bone involvement in ulcerative colitis, that of clubbing of the fingers while not specifically involving bones or joints, is usually classified in the bony disorders. Clubbing of the fingers occurs more frequently in patients with ulcerative colitis than in the normal population, and more so if the proximal colon is involved.

Other bony disorders associated with ulcerative colitis, particularly as complications of steroid therapy are osteoporosis and aseptic necrosis of the femoral head.

The principal ocular complications of ulcerative colitis 1) episcleritis and 2) uveitis. The incidence of ocular complications is usually low: Billson found that 3.6% of 465 patients with ulcerative colitis also had ocular complications.<sup>24</sup> In general, the scleritis, like peripheral arthritis, tends to flare up as the colitis worsens. The uveitis, on the other hand, tends to precede the arthritis, sometimes by years, and tends like spondylitis, to persist and worsen even with therapy of colitis. Uveitis, like spondylitis has been associated with the HLA-W27 antigen. In ulcerative colitis patients with spondylitis, one half have evidence of uveitis, and in patients with colitic uveitis three fourths show signs of spondylitis.<sup>12</sup> The uveitis manifests itself as ocular pain, photophobia, headache, and decreased vision. Development of these symptoms in colitis patients usually means the patient should be referred to an ophthalmologist.

The third major extracolonic complication of ulcerative colitis is skin involvement. The major skin manifestation of ulcerative colitis is erythema nodosum and the second most common, and more severe manifestation is pyoderma gangrenosum. The erythema nodosum consisting of usually multiple, red, shiny, tender subcutaneous nodules most often found on the shins, occurs in association with arthritis, and parallels the course of the colitis, remitting when the colitis subsides. Erythema nodosum is not specific for ulcerative colitis, being found in a large number of other conditions including drug reactions to sulfonamides and tetracyclines, bacterial infections, especially streptococcal, fungal infections, lupus, sarcoidosis, tuberculosis, and rheumatic fever.

Pyoderma gangrenosum, according to Spiro, is almost diagnostic of ulcerative colitis.<sup>10</sup> It usually occurs with active disease, but not necessarily in relation to severity or extent of disease. The usual presentation is deep painless ulcerations, which heal very slowly if at all. They usually subside with therapy of the colitis.

Other skin manifestations include furuncles, and occasionally erythema multiforme. Aphthous ulcerations of



the mouth sometimes occur in association with flare-ups of colitis, and subside with remissions. There have also been several cases of ulcerations of the esophagus occurring in patients with ulcerative colitis.

In addition to the classic colitis lesions of the joints eyes, and skin, other systemic complications include liver disease, nephrolithiasis, amyloidosis (rare), vasculitis, and thromboembolic phenomena.

Among the liver lesions the most common is that of fatty infiltration. It occurs in up to 50% of colitis patients, and probably is related to lack of nutrition. Other liver lesions include viral hepatitis, possibly related somewhat to blood transfusions, chronic active hepatitis, and cirrhosis, usually post necrotic cirrhosis. The incidence of viral hepatitis in ulcerative colitis is about 3% and the incidence of cirrhosis is between 2% and 6%. Still another liver abnormality is that of pericholangitis, where lymphocytic and inflammatory cells infiltrate around the portal tracts, infiltrating the biliary ducts and even plugging them up, though cholestasis is not common. As the pericholangitis becomes more chronic, more connective tissue replaces the inflammatory cell infiltrates, resulting in mild clinical symptoms of either cholestasis or cholangitis, with fever, hepatic tenderness, and jaundice.

Occasionally, patients with ulcerative colitis will be afflicted by a systemic vasculitis similar to periarteritis nodosa or to lupus. The diffuse angiitis may lead to lung involvement, myocarditis, renal impairment, or infarction of various organs.

As far back as 1936, it has been reported that thromboembolism complicates ulcerative colitis.<sup>17</sup> A study by Lam, et al, referred to earlier, showed that platelets, factor V, and fibrinogen are increased in ulcerative colitis patients.<sup>18</sup> A number of studies have shown a high incidence of thromboembolism in colitis, a series by Edwards showing an incidence of 6.4% out of 647 patients;<sup>26</sup> other studies have shown incidences of from 1.9 to 7.1%. Part of this increased tendency to thromboembolism can be attributed to ill, bed-ridden, dehydrated patients, but altered hemostatic mechanisms appear to play a role, as veins other than pelvic and femoral veins are often involved. Often the thrombotic phenomena are associated with active disease, so they respond to improvement in the colitis. Sometimes heparin may be used, though GI bleeding may necessitate its discontinuance.

### VIII. Local complications

One of the commonest local complications of ulcerative colitis is hemorrhage, which can be severe and threaten exsanguination. Sometimes if bleeding per rectum is mild it will respond to Azulfidine or steroid enemas; if more severe bleeding occurs, transfusions may be required, and if bleeding is massive, surgery may be required.

Another severe complication of colitis is the development of toxic megacolon, where the colon loses its ability to contract, becomes distended and thinned out. This complication may develop in 1 to 2% of patients with ulcerative colitis. In toxic megacolon, the inflammation which normally involves the mucosa invades the submucosa and muscularis layers, and the weakened, atonic bowel becomes more weakened and dilated. Sometimes anticholinergic drugs, or anti-diarrheal drugs, or the use of

harsh laxatives in a bowel preparation for x-ray studies may be a precipitating factor in the development of toxic megacolon.

In the development of toxic megacolon the abdomen becomes distended, the colon becomes tender to palpation, the temperature rises, and the crampy abdominal pain normally seen with colitis is replaced with by a diffuse, steady abdominal pain, with signs of peritonitis. On x-ray examination, a flat plate of the abdomen will show a massively distended colon, with loss of haustrations; an upright film should be checked for free air in the peritoneal cavity.

Approximately 20% of such patients treated medically die, and of the medical failures who go to surgery anywhere from 20 to 40% may die.

The course of therapy suggested by Spiro is to try the patient on medical therapy, but if he does not respond within four days, or if he obviously worsens before then, to go to colectomy. The treatment suggested is initially to try clear liquids, then IV fluids and naso-gastric suction with either a Levin tube or a cantor tube if the dilation worsens. Daily flat and upright films should be obtained to check for signs of perforation. Steroids may be used, realizing that they may mask signs of perforation and peritonitis. If within a few days the patient does not quickly show signs of improvement, it is safer to remove the colon before it becomes thinner and fecal contamination of the peritoneum occurs. Another local complication of ulcerative colitis is benign stricture of the colon. In about 10% of ulcerative colitis patients, a constant narrowing of the colon lumen is found.<sup>10</sup> Usually they occur when the disease has been long standing, and are more common when a large portion of the colon is involved. Determining whether a narrowing is a benign stricture, or a carcinoma, especially if the patient has had ulcerative colitis for many years can be a diagnostic problem, particularly if he is having an exacerbation of his colitis symptoms; i.e. cramps, anorexia, weight loss, rectal bleeding.

With regard to cancer of the colon and ulcerative colitis, it has been found that cancer of the colon occurs in 3 to 10% of patients with colitis. The incidence rises in patients who develop colitis at an early age, those who have had the disease for greater than ten years, and those who have extensive colon involvement.

Another feature of colonic cancer associated with ulcerative colitis is its lack of predilection for the rectum and sigmoid colon; instead the cancer can be found most anywhere along the colon, with only 25% of the cancers being within the reach of the examining finger on the proctoscope. Cancers associated with colitis are often multiple, with foci of cancer being found in several areas of the colon. Another way these cancers differ from the usual colon cancers is that they are usually infiltrating and scirrous, as opposed to the classic polypoid cancers of the right colon and the stenotic napkin ring carcinoma of the left colon.

Obviously one of the difficulties arising in an ulcerative colitis patient is distinguishing the signs and symptoms of cancer from the signs and symptoms of ulcerative colitis. Anorexia, malaise, weight loss, rectal bleeding, diarrhea, anemia are all symptoms associated with development of carcinoma, but all are also compatible with exacerbations

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of ulcerative colitis. In addition, the barium enema, usually need to evaluate the colon for cancer, requires a thorough cleansing of the bowel for proper examination; a cleansing so thorough may tend to exacerbate the disease and lead to much patient discomfort, and even to the development of toxic megacolon. Inadequate preparation, while more tolerable to the patient, may lead to obscuring of radiographic findings.

Sigmoidoscopy, felt to be so valuable in screening for rectal and colon carcinoma in the general population, is of less value in the colitis patient, since only 25% of carcinomas are within reach of the sigmoidoscope compared to 75% of colon cancers in general population. Some people have tried to use the carcinoembryonic antigen (CEA) to try to predict early malignant change. A study in 1975 in London determined the level of CEA in 139 patients with ulcerative colitis as compared to 59 control subjects. They found no difference in the levels of CEA in either group. In addition seven patients with carcinoma of the colon and/or rectum in association with ulcerative colitis had CEA levels measured. Six of the seven cancer patients had CEA levels within the range shown by the control group. This study would indicate that the CEA is not a reliable indicator of early malignant change in ulcerative colitis.<sup>28</sup> Morson has noted that in patients with ulcerative colitis who developed colonic carcinoma, the rectal biopsy usually showed epithelial dysplasia even if the cancer was nonrectal. From this he suggested a rectal biopsy on a regular basis, to pick up early signs of developing malignancy.<sup>29</sup> A study from Leeds, England found fifteen cases of unequivocal epithelial dysplasia in nineteen cases of proven cancer of the colon, but they also found longstanding colitis and no carcinoma. From this, the authors concluded that searching for epithelial dysplasia was not a completely reliable method of detecting cancer of the colon.<sup>30</sup>

Probably the most prudent attitude to take is in patients who have colitis at an early age, or those who have had it for more than ten years, or who have diffuse colonic involvement to keep a high index of suspicion for cancer and to be prepared to suggest total colectomy if symptoms become chronic or disabling. Even then, there are a large number of patients still at risk, those with less diffuse involvement, those that are asymptomatic, or who are doing well on medical therapy.

## IX. Therapy

Many modes of therapy are available for treatment of ulcerative colitis. For mild disease, with localized symptoms, or only mild constitutional symptoms, mild dietary restriction may be used — with limiting raw fruits and vegetables, and possibly milk. If diarrhea is a problem antispasmodics and antidiarrheal medicines such as codein, Paragoric, or Lomotil can be used, but with caution. For more severe disease with bloody diarrhea, weight loss, anorexia, fever, and extracolonic manifestations, more potent medications may be called for. The most popular medications are systemic steroids, topical steroids pper

TABLE 8

Clinical state	ACTH (84 patients)	Cortison (85 patients)
Remission	51 (61%)	33 (39%)
Improved	12 (14%)	29 (34%)
Unchanged or worse	21 (25%)	23 (27%)

rectum, sulfa drugs, and most recently, antimetabolites. In the early 50's, Truelove and Witts performed a large scale study in which they showed that cortisone was better than placebo in controlling the initial symptoms of ulcerative colitis.<sup>31</sup> In 1959 these same two investigators compared the responses to ACTH 80 units q.d. vs. cortisone 50 mg. q.i.d. After six weeks, the 169 patients in their study were classified as either 1) in remission, 2) improved, 3) unchanged or worse.

Table 8 summarizes their study.

They suggested from this test that more patients become symptom-free on ACTH therapy than with oral cortisone. This was especially true in patients with relapses of colitis, with 70% of the patients with relapse getting a remission on ACTH therapy, while only 37% got a remission on cortisone. They also found that cortisone was no better than a placebo in preventing relapses of ulcerative colitis.

This is the only controlled trial comparing ACTH with synthetic steroids, and probably forms the basis for the claim that ACTH is superior to corticosteroids for treatment. A number of controlled studies<sup>31,33</sup> have shown steroids to be more effective than placebo, if used in doses equivalent to 40-60 mg/day of prednisone. The use of steroids on a short term basis was not found to prevent recurrences, but would lessen the duration and severity of relapses.

In two studies,<sup>34,35</sup> steroid suppositories or enemas were found to improve symptoms and demonstrate an improved proctoscopic appearance better than placebo suppositories.

A study by Truelove in 1962 found that prednisone p.o. plus hydrocortisone enemas daily, improved clinical symptoms and improved sigmoidoscopic appearance better than sulfa drugs alone in a study of 118 patients.<sup>36</sup>

It is not known whether the beneficial effects of topical steroid preparations are due to systemic absorption or to local effect, but certainly better effects are obtained with local insertion than when equivalent blood levels are obtained by oral medication.

Since 1942<sup>37</sup> sulfa drugs and especially sulfasalazine have been used for therapy of ulcerative colitis, but it was not until 1964 that Dick, et al, performed a randomized controlled study comparing sulfasalazine vs. placebo.<sup>38</sup> In that study they found sulfasalazine was effective in treating both initial attacks and relapses, but at doses of six grams per day, increased side effects were noted. In the same trial, the ability of sulfasalazine to maintain remission was examined. In this study 24 of 34 patients maintained on 0.5 gm of Azulfidine q.i.d. remained free of disease, while only 8 of 33 patients on placebo were symptom-free.

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# The "Ideal" Daily Vitamin C Intake

by

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## INTRODUCTION

The adult RDA (Recommended Dietary Allowance) for vitamin C has been set at 45 mg. per day<sup>1</sup>. The Food and Nutrition Board grants that the RDA is designed to protect against classical scurvy. There is no claim that this dosage is intended as the "ideal" daily intake for the maintenance of optimal health.

Pauling and others<sup>2</sup>, utilizing teleologic, evolutionary, and therapeutic techniques, conclude that the daily "optimal" vitamin C consumption lies between 250 and 5000 mg. per day. However, there is no indication that the data were derived from samples which could yield "ideal" values.

Only one known study<sup>3</sup> has attempted to develop a truly "ideal" daily consumption based on the hypothesis that relatively symptomless and signfree persons are healthier than those with clinical symptoms and signs. Therefore, the intake of such groups might well provide a basis for designating the "ideal" daily vitamin C consumption. Under the conditions of that experiment (a seven-day dietary survey), those without symptoms and signs consumed 160 to 250 mg. per day. This survey did not include the vitamin C taken in daily as a dietary supplement.

## METHOD OF INVESTIGATION

One thousand thirty-eight dentists and their wives were evaluated in terms of daily reported vitamin C consumption as judged from a food frequency questionnaire. This questionnaire evaluated the C consumed from both food and ascorbic acid or multi-vitamin supplements. Clinical state was graded by the Cornell Medical Index Health Questionnaire (CMI). The CMI is a self-administered health questionnaire consisting of 195 questions. Each question is answered by circling the word "yes" or "no." The questions are phrased so that the affirmative answers indicate pathology. The clinical findings in this report are the total number of affirmative CMI responses (CMI score).

## RESULTS

Table 1 shows (line 1) the daily vitamin C consumption of the entire group of doctors and their wives. In this

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	sample size	CMI range	CMI mean & S.D.	vitamin C (mg.) range	vitamin C (mg.) mean & S.D.
1) entire sample	1038	0-125	15.9±12.5	15-1120	327±188
2) CMI 50	1015	0-49	14.8±9.9	15-1120	328±189
3) CMI 40	986	0-39	14.0±8.8	15-1120	331±189
4) CMI 30	912	0-29	12.4±7.1	41-1120	335±189
5) CMI 20	740	0-19	9.8±4.9	41-1120	339±191
6) CMI 15	581	0-14	7.9±3.6	41-1120	349±193
7) CMI 10	372	0-9	5.7±2.3	41-1120	352±192
8) CMI 5	113	0-4	2.8±1.2	49-1120	376±187
9) CMI 4	73	0-3	2.1±0.9	104-736	383±181
10) CMI 3	46	0-2	1.5±0.7	108-736	389±185
11) CMI 2	16	0-1	0.6±0.5	116-719	390±220
12) CMI 0	6	0	0.0±0.0	120-719	410±251

June 1977

TABLE 1. Relationship of reported daily vitamin C consumption (food frequency questionnaire) and reported total clinical findings (Cornell Medical Index Health Questionnaire) in a presumably healthy male and female sample.

sample of 1038, the CMI ranged from 0 to 125 with a mean and one standard deviation of 15.9±12.5. The daily reported vitamin C intake ranged from 15 to 1120 mg. with a mean and standard deviation of 327±189 mg. per diem. This is approximately sevenfold more than the RDA. Parenthetic mention must be made that both the American Medical Association<sup>4</sup> and the American Dental Association<sup>5</sup> have indicated that the type of doctor interested in his own health is already above-average in health. Hence, in the usual context, these values would be viewed as "ideal" when, in fact, they are only normal (average).

Deleting all subjects with 50+ symptoms and signs leaves a sample size of 1015 (line 2), a mean and standard deviation for the CMI of 14.8±9.9, a vitamin C range of 15-1120 mg., and a mean and standard deviation of 328±189 mg. per day. Exclusion of all subjects with 40+ symptoms and signs (line 3) nets a sample whose daily vitamin C intake is 331±189.

Proceeding through the twelve lines of this table, the daily vitamin C intake slowly rises as the number of allowable clinical symptoms and signs (CMI score) is reduced. This approach indicates that the healthier the sample, the greater the daily vitamin C intake. Under the conditions of this experiment, approximately 410 mg. of vitamin C may be designated as the "ideal" daily allowance. This is about nine times the RDA.

It is recognized that the "ideal" is nonexistent as a theoretic end-point since there is biochemical individuality and because the state of the measurement art leaves much to be desired. Nonetheless, the technique utilized here provides a goal not previously considered.

## SUMMARY

To determine the optimal vitamin C intake, 1038 dentists and their wives were evaluated in terms of their clinical symptomatology and vitamin C consumption.

In a progressive selection of healthier subgroups (those

with fewer and fewer symptoms and signs), the vitamin C intake increased to a maximum of 410 mg. daily in those with no symptoms and signs. This is about nine times the RDA for this vitamin.

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## Medical Grand Rounds

CONTINUED FROM PAGE 38

From most of the published studies, it appears that Sulfasalazine (Azulfidine) is probably effective in acute attacks and relapses of ulcerative colitis, though perhaps not as effective as steroids, but is probably better for maintaining remissions. The question of how much and how long has not been answered. Goldman suggests leaving the patient on Sulfasalazine at least in low dosage 2 gm per day for as long as the patient is free of side effects.<sup>3,9</sup>

Sulfasalazine is a combination of sulfapyradine asulfonamide, and 5-aminosalicylic acid, a salicylate. In the colon the bacteria split the molecule into its salicylate component which is excreted in the stool, and the sulfa molecule which is absorbed and metabolized by the liver. The mode of action, why Azulfidine works in ulcerative colitis is not known. It is not even known whether the combination, or one of the components is the active ingredient. Whether the sulfa moiety reduces certain bacterial flora, or whether the salicylate binds to connective tissue in the gut and so reduces inflammation, or whether sulfasalazine inhibits certain diarrhea-eliciting prostaglandins; or in some other way influences fluid and electrolyte transport, whether any or some of these mechanisms are responsible for its efficaciousness in colitis is not known.

The major limiting factor in the use of Azulfidine is the incidence of side effects which range[ from 20% to 45%. Most side effects are minor, with nausea and vomiting, dizziness, headache, fever, or rash; less common, but more severe reactions include hemolytic anemia, rarely agranulocytosis, toxic epidermal necrolysis, and pancreatitis. Most of the side effects occur with higher doses, those above 4 gm/day, so if possible, the lowest dose that will improve symptoms should be used.

Besides drug therapy, the previously mentioned therapeutic modalities are 1) brief periods of bed rest for acute exacerbations, 2) mild sedation, 3) judicious use of antispasmodics, realizing that they have frequent side effects, including paralytic ileus. The use of anti-diarrheal agents may help decrease the frequency of watery stools. Hydrophilic agents such as Metamucil may help thicken the consistency of the stools and decrease the frequency of bowel movements.


The cornerstone of treatment of the acute episode of ulcerative colitis is colonic rest, which is best accomplished by keeping the patient NPO and giving intravenous fluids, gradually increasing the diet to include first clear liquids, avoiding laxative-like foods, and then gradually progressing the diet. The diet in ulcerative colitis has gradually become more liberalized over the past few years, but it is still prudent to avoid high residue foods such as nuts, stringy vegetables, perhaps milk, and prunes and apples. Also to be avoided are any foods which exacerbate the colitis.

Since ulcerative colitis is a chronic disease imposing many limitations on the patient, and frequently recurring and sometimes requiring hospitalization, it often places an emotional strain on the patient. A chronic, recurring disease can adversely affect the psyche of the most emotionally stable patient, and, as mentioned earlier, many of the patients with ulcerative colitis have prior emotional disturbances and abnormal psychological profiles. One study found only 3 of 37 patients were felt to be free of any psychiatric symptomatology; the remaining 34 of 37 patients were either neurotic (20), psychotic (2), manifested personality disorders (10), manifested psychosomatic disorders (2), or had regressive reactions (3).<sup>15</sup> Another study of 47 patients revealed 80% with psychosomatic disorders, and 9% with psychiatric disturbances, as measured by the MMPI.<sup>16</sup>

One study by O'Connor et al measured the effectiveness of psychotherapy combined with medical management compared with medical management alone over an eight year period. They found an improvement in symptomatology in the group treated with both psychotherapy and medical therapy, compared to medical therapy alone. This improvement did not occur until 2½ to 3 years into treatment, and continued through the entire eight year follow-up period.<sup>14</sup> While formula, intensive psychotherapy may not be available to every patient with ulcerative colitis, the managing physician is capable in most instances to render much of the emotional support needed by these patients. The emphasis, as Bargen stated, should not be on cure, but on control. The support, patience, and competence of the managing physician go a long way toward supplying the support these patients need. ●

**Bibliography Available Upon Request**





## Natural balance doesn't always come naturally

Big Balanced Rock, Chiricahua Mountains, Arizona (approx. 1,000 tons)

- **Most Widely Prescribed**—Antivert is the most widely prescribed agent for the management of vertigo\* associated with diseases affecting the vestibular system such as Menière's disease, labyrinthitis, and vestibular neuronitis.
- **Relief of Nausea and Vomiting**—Antivert/25 can relieve the nausea and vomiting often associated with vertigo\*.
- **Dosage for Vertigo\***—The usual adult dosage for Antivert/25 is one tablet t.i.d.

#### BRIEF SUMMARY OF PRESCRIBING INFORMATION

\*INDICATIONS. Based on a review of this drug by the National Academy of Sciences—National Research Council and/or other information, FDA has classified the indications as follows:

*Effective:* Management of nausea and vomiting and dizziness associated with motion sickness.

*Possibly Effective:* Management of vertigo associated with diseases affecting the vestibular system.

Final classification of the less than effective indications requires further investigation.

**CONTRAINDICATIONS.** Administration of Antivert (meclizine HCl) during pregnancy or to women who may become pregnant is contraindicated in view of the teratogenic effect of the drug in rats.

The administration of meclizine to pregnant rats during the 12-15 day of gestation has produced cleft palate in the offspring. Limited studies using doses of over 100 mg/kg/day in rabbits and 10 mg/kg/day in pigs and monkeys did not show cleft palate. Congeners of meclizine have caused cleft palate in species other than the rat.

Meclizine HCl is contraindicated in individuals who have shown a previous hypersensitivity to it.

**WARNINGS.** Since drowsiness may, on occasion, occur with use of this drug, patients should be warned of this possibility and cautioned against driving a car or operating dangerous machinery.


*Usage in Children:* Clinical studies establishing safety and effectiveness in children have not been done; therefore, usage is not recommended in the pediatric age group.

*Usage in Pregnancy:* See "Contraindications."

**ADVERSE REACTIONS.** Drowsiness, dry mouth and, on rare occasions, blurred vision have been reported.

More detailed professional information available on request.

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**Antivert<sup>®</sup>/25**   
(meclizine HCl) 25 mg. Tablets  
**for vertigo\***



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## MAKES SENSE FOR LONG-TERM CONTROL OF HYPERTENSION\*

Each capsule contains 50 mg. of Dyrenium<sup>®</sup> (triamterene, SK&F Co.) and 25 mg. of hydrochlorothiazide.



Before prescribing, see complete prescribing information in SK&F Co. literature or PDR. A brief summary follows:

**\* WARNING**  
This drug is not indicated for initial therapy of edema or hypertension. Edema or hypertension requires therapy titrated to the individual. If this combination represents the dosage so determined, its use may be more convenient in patient management. Treatment of hypertension and edema is not static, but must be reevaluated as conditions in each patient warrant.

**\* Indications:** When the combination represents the dosage determined by titration: Adjunctive therapy in edema associated with congestive heart failure, hepatic cirrhosis, the nephrotic syndrome, Corticosteroid and estrogen-induced edema, idiopathic edema; hypertension, when the potassium sparing action of triamterene is warranted. Routine use of diuretics in healthy pregnant women is inappropriate; they are indicated in pregnancy only when edema is due to pathological causes (see Warnings).

**Contraindications:** Further use in anuria, progressive renal or hepatic dysfunction, hyperkalemia. Pre-existing elevated serum potassium. Hypersensitivity to either component or other sulfonamide-derived drugs.

**Warnings:** Do not use potassium supplements, dietary or otherwise, unless hypokalemia develops or dietary intake of potassium is markedly impaired. If supplementary potassium is needed, potassium tablets should not be used. Hyper-

kalemia can occur, and has been associated with cardiac irregularities. It is more likely in the severely ill, with urine volume less than one liter/day, the elderly and diabetics with suspected or confirmed renal insufficiency. Periodically, serum K<sup>+</sup> levels should be determined. If hyperkalemia develops, substitute a thiazide alone, restrict K<sup>+</sup> intake. Associated widened QRS complex or arrhythmia requires prompt additional therapy. Thiazides cross the placental barrier and appear in cord blood. Use in pregnancy requires weighing anticipated benefits against possible hazards, including fetal or neonatal jaundice, thrombocytopenia, other adverse reactions seen in adults. Thiazides appear and triamterene may appear in breast milk. If their use is essential, the patient should stop nursing. Adequate information on use in children is not available.

**Precautions:** Do periodic serum electrolyte determinations (particularly important in patients vomiting excessively or receiving parenteral fluids). Periodic BUN and serum creatinine determinations should be made, especially in the elderly, diabetics or those with suspected or confirmed renal insufficiency. Watch for signs of impending coma in severe liver disease. If spironolactone is used concomitantly, determine serum K<sup>+</sup> frequently; both can cause K<sup>+</sup> retention and elevated serum K<sup>+</sup>. Two deaths have been reported with such concomitant therapy (in one, recommended dosage was exceeded, in the other serum electrolytes were not properly monitored). Observe regularly for possible blood dyscrasias, liver damage, other idiosyncratic reactions. Blood dyscrasias have been reported in patients receiving triamterene, and leukopenia,

thrombocytopenia, agranulocytosis, and aplastic anemia have been reported with thiazides. Triamterene is a weak folic acid antagonist. Do periodic blood studies in cirrhotics with splenomegaly. Antihypertensive effect may be enhanced in post-sympathectomy patients. Use cautiously in surgical patients. The following may occur: transient elevated BUN or creatinine or both, hyperglycemia and glycosuria (diabetic insulin requirements may be altered), hyperuricemia and gout, digitalis intoxication (in hypokalemia), decreasing alkali reserve with possible metabolic acidosis. 'Dyazide' interferes with fluorescent measurement of quinidine.

**Adverse Reactions:** Muscle cramps, weakness, dizziness, headache, dry mouth; anaphylaxis, rash, urticaria, photosensitivity, purpura, other dermatological conditions; nausea and vomiting, diarrhea, constipation, other gastrointestinal disturbances. Necrotizing vasculitis, paresthesias, icterus, pancreatitis, xanthopsia and, rarely, allergic pneumonitis have occurred with thiazides alone.

**Supplied:** Bottles of 100 and 1000 capsules; Single Unit Packages of 100 (intended for institutional use only).

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# Medicine Today: A Teacher Looks Back

May I express my sincere appreciation for being allowed to speak on this occasion? To be selected for the unique honor, the Jerome Cochran Lecture, was something I did not anticipate—it is, however, something I shall always cherish. I thank you for the singular distinction which admits me to the renowned ranks of previous Jerome Cochran Lecturers of the Medical Association of the State of Alabama.

Medicine and medical sciences are an integral part of human culture. Alabama has a medical heritage of which she can be justly proud. As members of the profession of medicine in this state, we are part of an eventful tradition that began in the era when this land was part of the Mississippi territory. By design from its very beginning, responsibility for the health of the people has been in the hands of the medical profession.

In the foreground in the organization of the Medical Association of the State of Alabama, and casting a large shadow, stands the foresighted Dr. Jerome Cochran, short of stature, somewhat bulky in frame, but of giant head and brain. He realized that if substantial progress were to be made in coping with the immense problems of public health in this state, chaos and confusion brought about in part by the Civil War must give way to orderly control. He also realized that the only means available at that time to effect this change was through the physicians of the state. He proceeded to direct the organization of these individuals into an association that would control the health affairs for the people of Alabama. Dr. Cochran's organization successfully incorporated three important factors to accomplish his goal, i.e. public health work; the regulation and control of licensure; the evaluation and promotion of scientific medicine. His ability to fuse these elements into one workable and enduring organization reflects the genius of Cochran. This scheme of organization has been attacked both within and without the profession, but has withstood until today the test of time. In 1898 Dr. L. L. Hill, President of the State Association, recommended the establishment of a memorial lectureship, honoring Dr. Jerome Cochran who had died in 1896. The first lecture was given the next year by Dr. J. T. Searcy of Tuscaloosa and has been followed yearly by many distinguished physicians.

It has been my privilege over the last three decades to meet on a teacher-student basis with several hundred medical students and I now realize that they taught me considerably more than I ever taught them. I have felt the exhilaration that comes with adventure — particularly that of sharing with students the adventure of seeking knowledge. Today, though they are scattered over the whole earth, it is my hope that they remember the learning experience we shared and know my heart follows their continuing progress — for all are in the service royal, that of serving humanity. One gains a kind of immortality in living on through the student whom one teaches.

Presented By HOWARD L. HOLLEY, M.D.

Anna Lois Waters Professor of Medicine in Rheumatology  
University of Alabama in Birmingham Medical Center

I will never forget my early association with the Medical School in Birmingham. Coming here as a Resident Physician in the Department of Medicine in the fall of 1945, it was my good fortune to spend my formative years under the tutorship of Dr. James S. McLester, one of the great men and great teachers of medicine. He was a gentleman of the highest order. His knowledge, his gentleness and humaneness made a firm impression upon me very early in my career as a teacher. The entire Department then consisted of two full-time faculty members. They, and the volunteer staff, did yeoman's duty in those early years. Certainly an early association with a dedicated faculty whose personal encouragement and special interest in my development is responsible for my own career as a teacher of medicine. Now, the Department has more than one hundred full-time teachers and researchers as well as a willing and capable volunteer faculty. Such growth has not been without considerable effort and the selfless devotion of all those involved.

During the last 30 years, profound changes have been made. I am sure that you, as well as I, are very proud of the status of all our medical centers. Let's look back a bit at the progress of the Medical School beginning in Birmingham. Some of you will remember Dr. Roy Kracke who was instrumental in the organization of the school. Dr. Kracke was indeed a martyr to its founding. The vicissitudes of organizing and financing a new medical school proved to be a crushing burden.

A few of you recall when Dr. Tinsley Harrison came to the school. He had the joint appointment of Dean and Professor of the Department of Medicine. He came about two years after Dr. Champ Lyons who had been appointed first full-time Chairman of the Department of Surgery. Unquestionably these two individuals made a firm imprint on the medical school as well as medicine in Alabama. There are some of you who will remember the grand rounds that were held in the auditorium of the Old Clinic Building in the 1950's that were conducted by Dr. Lyons and Dr. Harrison. These were usually stellar performances. Often the conflicting personalities of the presiding clinicians proved amusing. If the conferences had not been of good quality, they would not have been so widely attended for they lasted for two hours on Saturday morning! I have always been sorry that they were discontinued.

Some of you remember the "hole" where most of us learned immense amounts of emergency medicine. Just where the name originated I am not sure. I am inclined to believe it was first called "the black hole of Calcutta," at some time in the distant past no doubt so named by some frustrated student or housestaff member. Indeed it was an

## Jerome Cochran Lecture

alarming and tragic sight on Friday and Saturday nights but the suffering humanity that flowed through its door comprised a wide spectrum of disease and anyone who was exposed to this experience could not help but be impressed by the amount of medicine one could learn just in this place. It was particularly galling to have worked all night with no sleep and to have the nurse in charge, usually a martinet, and the chief resident arrive on the scene about 7:10 a.m., crisply dressed and fresh making pertinent and poignant observations on the proper care of the desperately ill and injured patients that we had overlooked in our frantic attempts to care for the flood of sick and injured. Fortunately this situation has changed. Not only has Cooper Green Hospital taken some of the emergency medicine but we have a new building and it is well organized under full-time physicians. However, I can still say with all honesty that it continues to be one of the best places to learn comprehensive handling of injured, desperately ill and dying patients. I am sure that you too have many such memories.

Now I will burden you with one more recollection. The third east floor of the University Hospital, where the critically ill and dying were all crowded together, unquestionably furnished teaching and learning processes for generations of state physicians. Of course, on Tuesday morning when Dr. Lyons was making his rounds, the place was so crowded by transient patient beds that one could not even enter the ward. I am sure some of you will understand this comment for the housestaff in surgery were so anxious about patients on whom they had been unable to complete the workup that they were hastily moved into the medical ward prior to 7 a.m. when the Chief of Surgery arrived for his rounds. After Dr. Lyons and his retinue had passed, the patients were summarily moved back into their proper places. All in all though the patients on both services usually received the very best of care; i.e. those fortunate ones that were able to be admitted to the hospital, all too often there was no room to admit some in desperate need.

I often ponder on who learned the most — the student or the teacher. Frequently I am still surprised at how little I have learned. But one thing I have learned and hope I have been able to transmit to the student, that the care of the patient is the primary value in medicine. "One of the essential qualities of the clinician is interest in humanity, for the true secret of the care of the patient is in caring for the patient." To instill in the student a value system oriented to the care of the patient; to instill a respect for the dignity and integrity of man, whatever his status in life; to instill and nurture a sympathetic desire for the patient to be well and healthy and attempt to guarantee a relationship that is intensely personal — these values I have tried to teach. For truly the center of the profession of medicine is simply the doctor-patient relationship. To me at any rate there remains the warm memory of the years I spent in the Birmingham Medical Center and an enduring pride in the small part I hope that I contributed to some of your training.

It has become quite apparent that medical care in the future must ultimately focus on the patient-oriented



HOWARD L. HOLLEY, M.D.

approach to problems, rather than the problem-oriented approach to patients. For truly the focus of the profession of medicine, the doctor-patient relationship, is the culture from which this approach will grow.

All of us have become particularly concerned about the trend in teaching hospitals where we see an unchecked drift into technologically thorough, but sometimes obsessively complete, medical workup of our patients. We should employ both restraint and discrimination in order to achieve a more precise patient-benefit application of our interventions. We will always have difficulty in appropriately balancing our technology, our humanity and our wisdom in the care of patients. Certainly we should continue our catholic curiosity, broad clinical skills, and a science-based, patient-oriented humanism.

Never before has research offered so much promise for the control of disease. It has been only in the last quarter of a century that we have witnessed the astounding, majestic march of science-based medical care. Our capacity to do good for our patients has been remarkably extended. I feel indeed fortunate to be living now in this golden age. Let us then review briefly some of the really outstanding advances in medical science that you and I have witnessed over the last three decades; advances of which I am sure Dr. Cochran would have been justly proud.

Alexander Fleming discovered penicillin in 1929 but it was not until 1941 that it was used on a patient. There has followed since a veritable outpouring of new antibiotic agents. This remarkable achievement changed our entire approach to infectious disease therapy. You and I witnessed the conquering of tuberculosis by streptomycin. This drug was first used in 1944 at the Mayo Clinic. It had been discovered by Dr. Selman A. Waksman. Both Dr. Fleming and Dr. Waksman received the Nobel Prize for Medicine. Isoniazid was discovered in 1912 but it didn't get its first human trial in patients dying with tuberculosis until 1951. Today 95% of all tuberculosis can be controlled with drug therapy.

Drs. Edward C. Kendall and Tadeus Reichstein raced each other for the discovery of cortisone. Dr. Philip S. Hench in 1948 used this drug in patients with arthritis at the Mayo Clinic. These three men received the Nobel Prize for Medicine. In 1962 Dr. George H. Hitching and Dr. Wayne Rundells were able to interfere with the metabolism of purine using allopurinol. This drug has now virtually tamed the ancient scourge of gout. Dr. George C. Cotzias was able to show that L-dopa would control most of the tragic symptoms of Parkinson's disease. The prestigious New England Journal of Medicine stated that this discovery



*Never before has research offered so much promise for the control of disease. It has been only in the last quarter of a century that we have witnessed the astounding, majestic march of science-based medical care. Our capacity to do good for our patients has been remarkably extended. I feel indeed fortunate to be living now in this golden age . . ."*

was the most important contribution in medical therapy of neurological diseases in the past fifty years. In 1948, Dr. John Franklin Enders was able to grow the polio virus from which the Salk and Sabin vaccine is derived. Dr. Enders received the Nobel Prize in 1954. This development has the possibility of virtually eliminating polio from the earth. Dr. Enders was also able to grow the virus of measles. The development of a vaccine for this disease has resulted in a decrease in the number of cases of measles from 385,000 in 1963 to approximately 20,000 in 1974. Dr. Paul D. Parkman was able to conquer Rubella or German measles. By the late summer of 1965, patients were receiving preventive inoculation against this potential cause of birth defects. Dr. William Pollack in 1961 demonstrated that the administration of a vaccine named RhoGAM prevented the dread complication of RH positive antibodies in pregnant women. By 1975 this vaccine was acknowledged to be 90% effective. In 1967, Dr. William J. Kolff introduced the artificial kidney which has been instrumental in saving hundreds of thousands of lives every year. Dr. Thomas E. Starzl did his first kidney transplant in humans in 1962. This is now a widely accepted procedure for the treatment of terminal renal disease. For the arthritis sufferer, Dr. John Charnley developed the artificial hip which is frequently used now. The operation was first performed in November 1972. By 1976 Charnley and his staff had performed over 9,000 operations.

In retrospect, many victories over the killer, cancer have been made. Dr. SubboRow developed folic acid antagonist which was used first in 1947 in treating children with leukemia. Since that time, there has been a plethora of anti-Leukemia drugs, including the L-asparaginase which was developed by Dr. John D. Broome. This drug, together with others, has helped to tame Leukemia. Certainly these patients are living much longer and more comfortable lives.

We have seen in our generation the incrimination of cigarette smoking as the cause of lung cancer. It was in 1952 that Cuyler Hammond of the ACS was able to do a definitive study showing this relationship. It should not be overlooked that Dr. Alton Ochner and his assistant, Dr. Mike DeBakey, were first to propose this premise.

Dr. Robert Gross in 1938 did his first blue baby operation. In 1944 Dr. Helen Taussig was able to persuade Dr. Alfred Blalock to repair a congenitally damaged heart. Using artificial valves of the heart to replace damaged ones was pioneered by Dr. Charles A. Hufnagel in 1952, and in 1952 Dr. John H. Gibbon first tried his heart lung machine on a human. This was the beginning of major open heart surgery. Dr. Clarence W. Lillehei in 1954 did the first open

heart surgery in which the heart was stopped to facilitate repair. Dr. John Kirklin of the Medical Center in Birmingham is widely recognized for his pioneer work on repairing and replacing damaged heart valves.

Dr. Edward R. Freis in 1964 was able to show that the control of hypertension markedly decreased its dread complications. Dr. Christian Barnard in 1967 did the first human heart transplant using the technique developed by Dr. Norman Schumway. Dr. Schumway I believe is the only surgeon still continuing to replace diseased hearts using a sophisticated but efficient method of cell typing and methods to prevent rejection. These are some of the highlights but certainly not all of the major contributions in the magic march of scientific based medicine and there are more to come. In the not too distant future we will have a vaccine for the prevention of hepatitis, better understanding of Hodgkin's disease, improvement on the now known immunological treatment of solid tumors, and treatment of virus diseases. It is marvelous to realize that American Medicine swept the field of the Nobel Prizes for 1976, and did this under the free system of medical research and practice.

In every area the physician has better training and is better equipped than he was 30 years ago. The mechanisms of disease are investigated more thoroughly; patients are studied more carefully; and treatment is administered more skillfully.

We should not become complacent, however, for the future seems uncertain in the medical profession. There is indeed the ominous persistent and not so distant drum roll, i.e. government control of health care. The tom-toms beat ever louder. The news media, columnists and civil libertarians apparently have found a sympathetic note in the population at large. It is very difficult to oppose an idea that everyone is entitled to health care, i.e. it is a right, in contradistinction to having adequate medical care available to all who are in need of it. These are two distinct entities. Individual health cannot be bought by any amount of money. It involves a great many parameters, heredity, environment and personal habits.

With health care consuming \$1 out of every \$9 the average worker earns, some politicians are warning doctors that a public "backlash" is building that could give an added push to a Government take-over of the delivery of medical care. The physician is being made the villain though he receives less than 1/5 of every dollar spent on health care.

As public outrage over medical costs spreads, juries are assessing unprecedented penalties against doctors accused

## Jerome Cochran Lecture

of negligence. Because of this, many doctors and hospitals are boosting fees even higher to pay for annual increases of as much as 300 per cent in malpractice-insurance premiums. Also, physicians increasingly are resorting to "defensive medicine." This means prescribing additional millions of dollars' worth of marginal or unnecessary diagnostic tests and treatments in hopes of avoiding any oversight that might result in costly lawsuits.

Americans are concerned over soaring medical care bills that are inflicting sudden misery, and sometimes lifelong hardship, on millions of people every year. Convinced that they are being gouged, people are demanding to know why the nation's annual medical costs in the last decade have more than tripled to nearly 140 billion dollars — and what can be done to rein them in.

Pinpointing the causes of rising costs is difficult, but more and more experts regard the over-all system of medical economics as the culprit. Because Americans pay less than one tenth of their own hospital bills and one third of their physicians' fees directly, "even people with minor problems usually say, 'Cure me at any cost.'" A lot of medical care now is prepaid or insured and that creates an illusion of low or no cost among many individuals. So they demand more. After weighing the evidence, however, the President's Wage-Price Council warns that "a federal take-over would result in national expenditures of truly astronomical proportions" by removing spending decisions still further from the people who earn the money. The public is falsely led to believe that medicine by government could be free. The nationally known political pollster, Mr. Scannon, recently did a scientific opinion analysis and found that 95% of the population was in favor of NHI (National Health Insurance) but no one was willing to have deducted from their salary or be assessed higher taxes that would be necessary to fund such a program.

I think it should be pointed out that the idea of a national health insurance of quality care available anytime to anyone is widely misunderstood and is indeed an impossible dream. Union officials are demanding that Congress pass legislation providing complete national health insurance for every citizen, financed by new Social Security taxes and other federal levies. Costs could be controlled, they say, by strong curbs on how much the Government would pay for certain kinds of medical services. Groups such as the American Medical Association reply, on the other hand, that their efforts are aimed only at maintaining professional standards that will guarantee quality care. "There is always the danger that we will become so keen on saving money that truly life-saving measures will be ignored." Surely there must be an acceptable compromise.

The emphasis on expensive, high-quality treatment also has led to an increase, indeed an over supply of physicians practicing specialties in affluent areas of cities and suburbs where more people can afford their bills. This has left a severe shortage of adequate care in ghettos and rural areas.

There is no question that the public is deeply concerned about the ripoffs that it reads about in conjunction, for example, with the medicaid program. I think there also is public discontent with doctors who exploit monopolistic

situations. In those cases, the resultant income is very big indeed. However, even the critics point out that these are in fact very few.

But when you look at the average doctor — who earns \$60,000 a year, who works a very heavy week for the most part and who is daily involved in life-and-death decisions — you find no such widespread discontent with the individual physician. The public's trust in the medical profession, which has been declining in recent years, appears to have leveled off, a recent Harris Survey reveals. The results also show that the public still holds medicine in higher esteem than any other major institution. I feel that the physician population of the country has not taken full advantage of its continuing asset of being the most prestigious and admired profession available.

You will recall that, in spite of the intensive efforts of organized medicine, both medicare and medicaid were passed by the Congress and have been implemented. This has revealed the shortcomings of government sponsored health care and it has involved the expenditure of funds far more than had ever been anticipated by its sponsors.

I am sure you are aware that today the average patient population in the United States is well informed and they want and demand exemplary medical care. On the other hand, we are convinced that any National Health Insurance Program which fails to address itself to the socioeconomic aspect of the poor and other minority groups is going to meet with failure for that segment of the population. The answer to better health care for close to one third of our citizens does not lie solely in the health field. Unless the poor and minorities can acquire the degree of social sophistication and economic means necessary to effectively use whatever system of health care this country provides, good health will continue to elude them.

How does the consumer get a doctor with whom he can have an empathetic relationship? How can he avoid being divided up among too many specialists? Where can he go other than to the emergency room, when he has a problem?

I believe we should reassess our alternatives in implementing the delivery of health care. As Jerome Cochran looked to the physicians of his day to implement a plan for an organization to bring better health care to the state so today it still seems the best alternative to look to the physicians themselves for ideas and practical plans in dealing with the national health crisis.

Just recently a news media announced that the administration in Washington had created a task force to determine the feasibility of a National Health Insurance. They named a lay person from the Brookings Institute to head it. This is an ominous trend to trust decisions for delivery of health care in non-medical hands.

We must be more attentive to Justice Brandeis' warning that experience has taught us "to be most on our guard when the government's purposes are beneficent." For as the wise Brandeis said, "The greatest dangers to liberty lurk in the insidious encroachment by men of zeal, well-meaning, but without understanding."

The General Accounting Office and others demonstrate

CONTINUED ON PAGE 51



20  
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# Y O U H A D Y O U R H E A R I N G

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20

# T E S T E D L A T E L Y A S I M P L Y

20  
15

# C O M F O R T A B L E H E A R I N G

20  
10

# I N V E S T M E N T O F A F E W M I N U T E S

Hearing losses are among the most consistently neglected health problems. Many people with them won't even admit it to themselves, let alone others. A little encouragement may start them thinking about themselves more realistically.

That's why we're offering you the poster shown here. You can hang it on the wall or stand it on a small table. It comes with booklets called "As precious as sight" that give your patients some basic facts about auditory testing and hearing losses and how easy they are to correct in many cases.

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AID WILL HELP



Ludov



# When choosing a diuretic for day-in-day-out hypertension control with comfortable compliance...

The agent you choose in mild to moderate essential hypertension should offer (1) long-term effectiveness, (2) patient comfort and compliance.

## **Zaroxolyn offers both.**

In one long-term study<sup>1</sup> Zaroxolyn brought moderately elevated (average 161/109 mm Hg) blood pressure down to the range of normotension—and held it there for a year or more.

The investigator noted, "Patient cooperation was surprisingly good for a study of such duration [2½ years]. The once-daily dosage schedule with

metolazone [Zaroxolyn] no doubt contributed to patient compliance."

Overall compliance with Zaroxolyn is good—very good. An analysis of controlled clinical studies involving 188 Zaroxolyn patients showed that only eight discontinued therapy because of side effects. That's a discontinuation rate of only 4.3%, and broader clinical experience appears to substantiate this low rate?

Zaroxolyn. For long-term control and comfortable compliance in mild to moderate hypertension.

**Recommended initial dosage in mild to moderate essential hypertension—2½ to 5 mg once daily**

# **Zaroxolyn<sup>®</sup>**

(metolazone, Pennwalt)

2½-mg, 5-mg and 10-mg tablets

## **once-daily antihypertensive diuretic**

Before prescribing, see complete prescribing information in the package insert, or in PDR, or available from your Pennwalt representative. The following is a brief summary. **Indications:** Zaroxolyn (metolazone) is an antihypertensive diuretic indicated for the management of mild to moderate essential hypertension as sole therapeutic agent and in the more severe forms of hypertension in conjunction with other antihypertensive agents. Also, edema associated with heart failure and renal disease. **Contraindications:** Anuria, hepatic coma or precoma; allergy or sensitivity to Zaroxolyn. Or, as a routine in otherwise healthy pregnant women. **Warnings:** In theory cross-allergy may occur in patients allergic to sulfonamide-derived drugs, thiazides or quinethazone. Hypokalemia may occur, and is a particular hazard in digitalized patients; dangerous or fatal arrhythmias may occur. Azotemia and hyperuricemia may be noted or precipitated. Considerable potentiation may occur when given concurrently with furosemide. When used concurrently with other antihypertensives, the dosage of the other agents should be reduced. Use with potassium-sparing diuretics may cause potassium retention and hyperkalemia. Administration to women of childbearing

age requires that potential benefits be weighed against possible hazards to the fetus. Zaroxolyn appears in the breast milk. Not for pediatric use. **Precautions:** Perform periodic examination of serum electrolytes, BUN, uric acid, and glucose. Observe patients for signs of fluid or electrolyte imbalance. These determinations are particularly important when there is excessive vomiting or diarrhea, or when parenteral fluids are administered. Patients treated with diuretics or corticosteroids are susceptible to potassium depletion. Caution should be observed when administering to patients with gout or hyperuricemia or those with severely impaired renal function. Hyperglycemia and glycosuria may occur in latent diabetes. Chloride deficit and hypochloremic alkalosis may occur. Orthostatic hypotension may occur. Dilutional hyponatremia may occur in edematous patients in hot weather. **Adverse Reactions:** Constipation, nausea, vomiting, anorexia, diarrhea, bloating, epigastric distress, intrahepatic cholestatic jaundice, hepatitis, syncope, dizziness, drowsiness, vertigo, headache, orthostatic hypotension, excessive volume depletion, hemoconcentration, venous thrombosis, palpitation, chest pain, leukopenia, urticaria, other skin rashes, dryness of mouth,

hypokalemia, hyponatremia, hypochloremia, hypochloremic alkalosis, hyperuricemia, hyperglycemia, glycosuria, raised BUN or creatinine, fatigue, muscle cramps or spasm, weakness, restlessness, chills, and acute gouty attacks. **Usual Initial Once-Daily Dosages:** mild to moderate essential hypertension—2½ to 5 mg; edema of cardiac failure—5 to 10 mg; edema of renal disease—5 to 20 mg. Dosage adjustment may be necessary during the course of therapy. **How Supplied:** Tablets, 2½, 5 and 10 mg

### **References:**

1. Dornfeld L, Kane R: Metolazone in essential hypertension. The long-term clinical efficacy of a new diuretic. *Curr Ther Res* 18: 527-533, 1975.
2. Data on file, Medical Department, Pennwalt Prescription Products

 **PENNWALT**

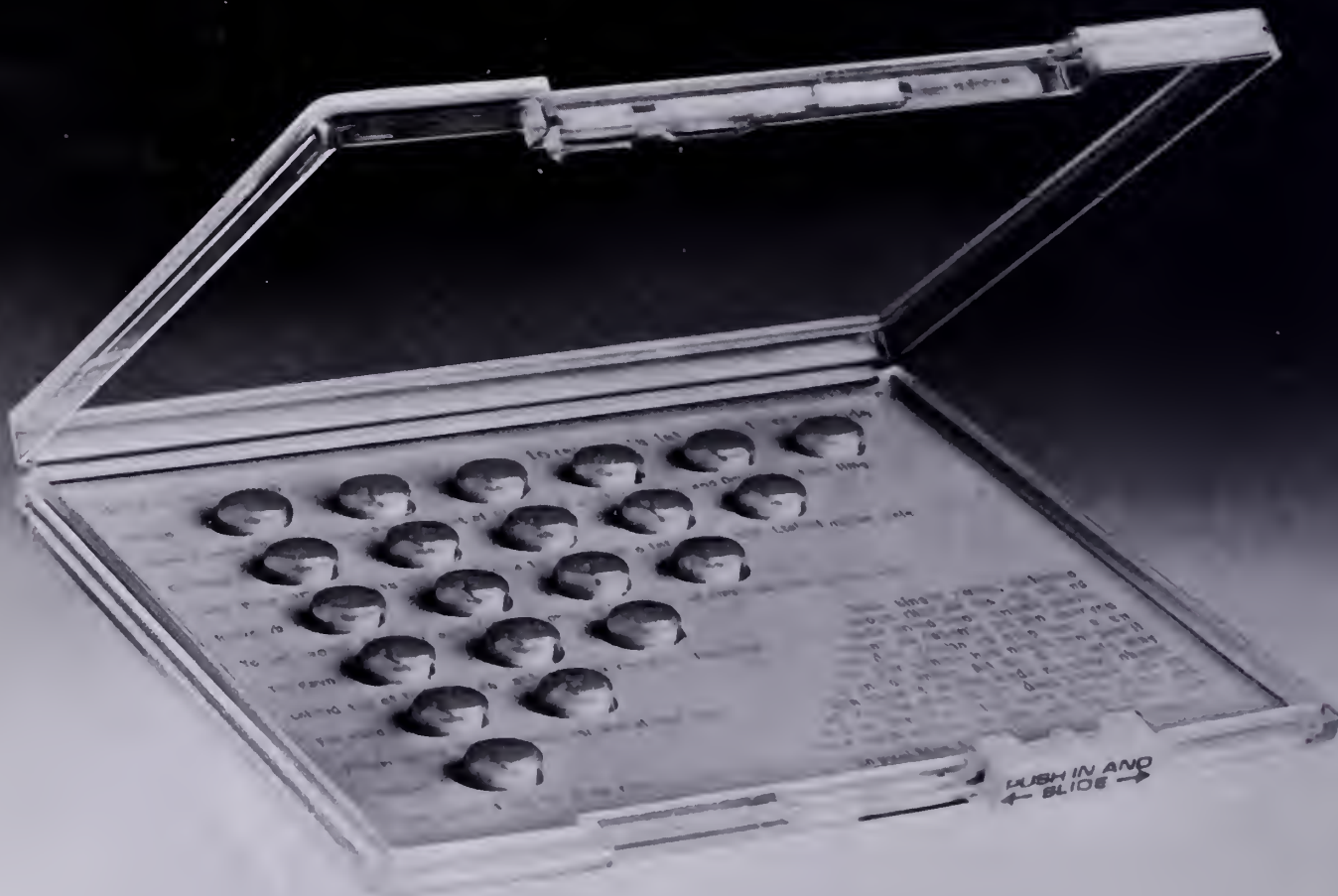
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# Medrol<sup>®</sup> 4 mg Dosepak<sup>\*</sup> methylprednisolone, Upjohn

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that the private sector administers things more economically than the Government. Furthermore, large Government programs can become excessively bureaucratic, which interferes with innovation — and what we need desperately at the moment in medicine is innovation in the economic but efficient delivery of quality health care. Innovations in the delivery of health care can be institute; an increased emphasis on a family type practice; more efficient and better quality outpatient services; adequate emergency services; short-term hospital care for minor surgery or minor illness; a plan of catastrophic health insurance; continuing improvement of peer review; more thoroughly planned expansion of health care facilities such as hospitals and nursing homes; pooling of expensive, sophisticated equipment; and innovation of health care in rural and sparsely populated areas. It would appear that, in the latter, the use of a nurse practitioner with available emergency back-up services might be a more efficient utilization of medical talent than using a physician.

We shall be spending an estimated 223 billion dollars by 1980 on repairing the results of our neglect of health — that is, on curative medicine. Prevention and early detection of disease will in the future become the principal weapon in defeating escalating costs of threatening the sick. "If we prevent illness and reduce the need for treatment and rehabilitation, we avoid astronomical expenses later."

Today the medical profession is increasingly in bondage. As we struggle to attain a higher plane of social organization, the physician becomes increasingly subordinate to organizations, governments, institutions, and men of neither license nor tradition in medicine. They have vaulted into positions of power in the newly created health syndicate: businessmen, lawyers, accountants, bankers, hospital administrators and the new breed, paper doctors who treat paper. They see to the health of the by-laws, procedure manuals, bills, accounts, debits and insurance forms, beguiled by the delusion that if the records are neat and orderly, then the care of the patients is neat and orderly.

The doctor, as their hireling, is forced to use the tools and services they provide, which may not be the best available. Clearly the precious bond that exists between a patient and his doctor is being riven by unqualified intruders with unlimited power. The physician, in his spiritual and serving role, may be the commodity that is squandered in this struggle.

We medical men should constantly remind ourselves that medicine will remain a profession just as long as physicians are gentlemen before they are businessmen and scientists. Our medical practice must be tempered by the realization that medicine only progresses as it progresses in charity, that compassion which causes us to reach out with help to those who "bear the mark of pain."

Our goal as doctors is to become physicians, i.e. healers of the sick. It is not a goal we knowingly achieve. We can only strive, with the hope that one day an epitaph will read "Physician."

Daily and often during unexpected hours of the night

*"The greatest dangers to liberty  
lurk in the insidious encroachment  
by men of zeal, well-meaning, but  
without understanding."*

you are presented with an opportunity to serve a person felled by trauma or disease. A fellow traveler you never met or knew, who through the random numbers of fate or chance suddenly becomes the sacred trust of you as a physician and confidently submits to that arrangement.

A physician is not stranger to his fellow. "Physician" is not an isolated contemporary title, self-conferred, but an embodiment with roots that course through the dust of centuries. Our collegium is not truncated by oceans or defined by continental shelves, altered by wars or plagues or the politics of nations. Our heritage is a constant source traced to the first instance that a man kneeled to succor a stricken brother. When one physician meets another, he knows him as an ancient friend, his honor tested, his marrow bearing the residue of a genetic chain six thousand years in length. Another physician is more brother and cousin to me than kith or kin. I know what he has been through, and what he has to offer. I know his dedication and integrity.

You departed the shelter of institutional medicine for private practice which in a sense is the true goal of our profession. Here you have searched again for our common heritage. Perhaps it exists in the singular affinity that develops between doctor and patient, where authority and responsibility are bound in a single passion to cure the sick, or, failing that, to make the incurable comfortable and support their death with humanity and dignity. ●

## MEDIX

MEDIX TV PROGRAMS FOR 1977: THE BIONIC BODY • USE ONLY AS DIRECTED • HOSPITAL: A HEALING PLACE • ARTHRITIS, CHILDHOOD CRIPPLER • WILL I HAVE A HEART ATTACK? • PREMATURE INFANTS: THE SEVEN PERCENT DILEMMA • THE HYPERTENSION, HIGH BLOOD PRESSURE BLUES • SMOKING: SO YOU WANT TO END IT ALL • MENOPAUSE: THE CRUCIAL YEARS • WHO AM I? THE TRANSSEXUAL DILEMMA •

consult local listing for time/channel



## A PRELIMINARY ANALYSIS THE ECONOMIC BENEFITS OF MIST

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Vol. 14, No. 1, January, 1977, pages 103-118.

By MARGARET B. DOLLAR, M.Ed.<sup>†</sup> & MARGARET S. KLAPPER, M.D.<sup>†</sup>

### ABSTRACT

This study represents the very first probe into the economic benefits provided by MIST. Analysis of 426 cancer-related calls made during December 1975 found that approximately 82.5 percent of these cancer patients received medical consultation via MIST and ensuing treatment in their own locality, thus saving them the expense of a trip to Birmingham for treatment. Adjusting for the operational cost of MIST, the travel expenses avoided amount to a \$37,224.58 savings to society. Since this sample represents only 19 percent of all MIST calls made during December 1975, the potential total savings MIST could provide per month or per year is phenomenal. These findings indicate that not only does MIST provide the patient with access to health care consultation and quality medical care, but MIST also reduces the patient's potential total cost for such services. By curbing potential increases in medical expenditures, MIST is providing enormous savings to society.

### INTRODUCTION

In light of such current health issues facing the United States as rising medical expenditures and insufficient access to health care, especially in rural areas, it seems appropriate to take a look at existing programs which might in some measure help alleviate these problems.

One such program now in its seventh year of operation at the Medical Center of The University of Alabama in Birmingham (UAB) is MIST, a Medical Information Service via Telephone by which physicians and health professionals throughout the state of Alabama can dial a toll-free number and be in momentary communication with specialists in all areas of medical practice at the UAB Medical Center. Genuine concern for improving patient care through physician consultation was the essential idea behind the establishment of MIST in July 1969.

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An important testimony to the success of MIST is the amount of interest it has generated. To date, MIST has been visited by health administrators from 63 cities, 34 states, and eight foreign countries. It has received national television coverage from CBS and international coverage from the Motion Picture and Television Service of the United States Information Agency. And in March of 1976, four HEW officials visited MIST as part of an effort by the National Institutes of Health (NIH) to initiate similar telephone consultation systems in other academic health centers across the nation.

Another measure of the success of MIST is recorded in Table 1. MIST's tremendous growth in number of calls has led to the assumption that this service is of definite value to physicians and health professionals of Alabama who may have daily access to many of the advanced resources available at an urban academic health institution such as UAB. This program expansion has also led to the logical conclusion that the knowledge or information gained by the calling physician or health professional ultimately results in improvement of the health or medical care of his or her patient.

Although the general merits of a MIST-type system are now well recognized, no study has yet been conducted to attempt to evaluate some of the economic benefits that might be inherent in such a program. Specifically, can a program such as MIST provide the patient with health care consultation and access to quality medical care, and at the same time reduce the patient's potential total cost for such medical services?

This study has been undertaken as a preliminary effort to answer that question. If it can be shown that MIST provides economic benefits in the form of 'savings to patients' at least equal to the operational cost of MIST, the economic soundness of investing in such a program would then be established; for it is widely accepted that "good decision-making in health, as in any field, requires the weighing of additional (economists call them marginal) benefits against the additional (marginal) costs."<sup>1</sup>

1. Fuchs, Victor R., "The Growing Demand for Medical Care," ESSAYS IN THE ECONOMICS OF HEALTH AND MEDICAL CARE, page 68.



## OPERATIONAL COST OF MIST

In testing the hypothesis that MIST does provide certain savings to patients, we must first take a look at the expenditures involved in operating MIST. Since this study is based on a one month sample of cancer-related calls, an examination will be made of the cost of operating MIST for cancer calls alone, for one month only.

MIST utilizes the WATS line telephone system at no cost to its users. However, since MIST is a line item in the state budget, the average cost per call should be taken into account when evaluating the possible economic benefits of MIST.

The total operational cost of MIST for FY1974-75 as outlined in Table 2 was \$129,660. The total number of calls made during this time was 29,538. In reality, the cost per call will vary according to time length, but for the purposes of this study it will suffice to use the average cost per call which in FY1974-75 was \$4.39. Based on 426 total cancer-related calls made during the survey period (December 1975), the operational cost of MIST for cancer-related calls only for the month of December was \$1,870.14.

There is an additional cost factor which must be written in. The faculty members of the Comprehensive Cancer Center at UAB answer all cancer-related calls free of charge. However, the time they spend providing consultations does represent a monetary expense. The director of the Comprehensive Cancer Center estimates that the time spent by the various faculty members is equivalent to the time load of one fulltime professor or associate professor. The average monthly salary for professors and associate professors at the UAB Comprehensive Cancer Center is \$3,750 and, since their salaries are paid by UAB (the state), this expense should be accounted for. The total operating cost for one month of cancer calls thus comes to \$5,620.14.

## DEFINITION OF 'SAVINGS TO PATIENTS'

Above and beyond the fact that MIST is a service to physicians and other health professionals in Alabama, justification for such a program will be further supported if it can be shown that MIST can provide economic savings to patients at least equal to the cost of operating MIST. This means that for this particular study there must be a total savings of at least \$5,620.14 to cancer patients during December 1975 in order for MIST to 'break even.'

'Savings to patients' shall be defined as those expenses which are abortable by making proper medical treatment available in the patient's own locality rather than requiring the patient to travel to the Comprehensive Cancer Center in Birmingham for treatment. Although there may be other potential savings to the patient through use of MIST,<sup>2</sup> only the following abortable expenses normally incurred in making a trip to Birmingham will be considered: transportation costs, lodging and food, loss of productivity as described by the patient's earnings, and additional consultation fees by the patient's attending UAB physician. Due to the limited nature of the MIST data and due to the difficulty in assessing cost of treatment at UAB versus cost

2. "Transfer payments, taxes, consumption, the work of housewives, and the discount rate are some additional costs which feasibly can be included..." Klarman, Herbert E., "Syphilis Control Programs," MEASURING BENEFITS OF GOVERNMENT INVESTMENT, page 377.

## APPENDIX A SAMPLE MIST DATA COLLECTION FORM

Date \_\_\_\_\_

Caller \_\_\_\_\_

Requested \_\_\_\_\_

Responder \_\_\_\_\_

Patient's Name (Optional) \_\_\_\_\_

Loc. Spec. \_\_\_\_\_

Loc. Spec. \_\_\_\_\_

Loc. Spec. \_\_\_\_\_

Line No. \_\_\_\_\_

Phone \_\_\_\_\_

Phone \_\_\_\_\_

Phone \_\_\_\_\_

Time Rec'd \_\_\_\_\_ Time Ended \_\_\_\_\_

Incoming \_\_\_\_\_ Outgoing \_\_\_\_\_

Diagnosis \_\_\_\_\_

CALLER \_\_\_\_\_

RESPONDER \_\_\_\_\_

Pt's Age \_\_\_\_\_ Sex \_\_\_\_\_

## APPENDIX B

MIST QUARTERLY REPORT (10/1/75-12/31/75)  
SUBMITTED TO THE CANCER COMMUNICATIONS  
PLANNING COMMITTEE OF THE COMPREHENSIVE  
CANCER CENTER

### Cancer Calls by Specialty

July 1975		
Family Practitioners	86	Hematology Oncology 93
Surgeons	47	OB GYN 78
Internists	46	Surgery 36
OB GYN	42	Radiology 35
Radiologists	15	Medicine 19
Pediatricians	12	Pediatrics 16
Other Specialists	46	Other Departments 17
294 (12% of total calls)		294
August 1975		
Family Practitioners	86	Hematology Oncology 123
Internists	60	OB GYN 101
Surgeons	50	Radiology 48
OB GYN	48	Surgery 44
Radiologists	24	Medicine 21
Nurses	22	Pediatrics 16
Pediatricians	13	Other Departments 12
Other Specialists	62	365
365 (18% of total calls)		
September 1975		
Family Practitioners	101	Hematology Oncology 142
Internists	91	OB GYN 90
Surgeons	87	Surgery 64
OB GYN	48	Radiology 56
Radiologists	41	Pediatrics 36
Pediatricians	26	Medicine 20
Other Specialists	28	Other Departments 14
422 (17% of total calls)		422

of treatment in nonmetropolitan areas, this preliminary economic evaluation will be limited to addressing the above expenses.

Before presenting the estimated minimal savings to patients, several data limitations must be acknowledged.

## DATA LIMITATIONS

Cancer-related calls during December 1975 were selected as the data base because, of the total calls placed through MIST, more are related to cancer than to any other disease category (19 percent in December 1975). In addition, while

# The Economic Benefits Of MIST

TABLE 1.

TOTAL RECORDED MIST CALLS 7/1/69 – 6/30/76

	INCOMING	OUTGOING	TOTAL	7 YEAR TOTAL
FY 1969-70	2,413	*	2,413	
FY 1970-71	4,555	6,815	11,370	
FY 1971-72	8,911	7,935	16,846	
FY 1972-73	11,919	7,251	19,170	
FY 1973-74	14,236	9,674	23,910	
FY 1974-75	18,520	11,018	29,538	
FY 1975-76	21,193	8,730	29,923	
				133,170

\* Data not recorded at that time.

Source: "MIST – Five Years," *Continuing Medical Education Newsletter*, Vol. 4, No. 34, Birmingham, Alabama, September, 1974.

"MIST – Six Years," *Health Extension, Public Service and Research Newsletter*, Vol. 1, No. 1, Birmingham, Alabama, September, 1975.

TABLE 2.

## OPERATING EXPENSES OF MIST, FY 1974-75

4 Full Incoming WATS lines (\$600/mo. ea.)	\$ 2,400
3 Full Outgoing WATS lines (\$600/mo. ea.)	1,800
7 MIST Operators and 1 Coordinator	5,000
20 Pocket Pagers (\$9.00/mo.)	180
Office Expenses (Mailings, etc.)	1,000
7 Call Directors	425
	\$ 10,805/month
	\$129,660/year

TABLE 3

## CANCER CALLS BY SPECIALTY – DECEMBER, 1975.

Family Practitioners	116
Surgeons	70
Internists	64
Ob Gyn	61
Radiologists	38
Pediatricians	27
Other Specialists	26
Nurses	24
TOTAL	426 (19% of all MIST calls)

TABLE 4.

## COST OF TRIP TO BIRMINGHAM IF OVERNIGHT STAY IS NOT REQUIRED (PATIENT LIVES WITHIN 100 MILE RADIUS)

* GASOLINE (Allowing 18¢ per mile and a maximum of 200 miles roundtrip)	\$36.00
* FOOD (Average per person @ \$1.50 for breakfast, \$1.50 for lunch, and \$3.00 for dinner)	6.00
* LOSS OF PRODUCTIVITY (1 day)	17.44
TRIP TOTAL	\$59.44
CONSULTATION FEE	
HEMATOLOGY ONCOLOGY	60.00
GYNECOLOGICAL	30.00
RADIATION ONCOLOGY	50.00
SURGICAL ONCOLOGY	40.00

\* ESTIMATED See discussion below.

the incidence risk for specific cancers does vary from one population group to another, cancer as a whole is one disease not usually predisposed toward any particular population subgroup. Therefore, an analysis of cancer calls should be more representative of the typical patient population served by MIST. The number of cancer calls (426) made during December 1975 is a substantial though admittedly small sample. MIST is in the process of refining its computer services, at which time efficient data retrieval capabilities will allow a larger data base to be examined, resulting in either verification or invalidation of this initial study.

An additional major limitation concerns patient referral statistics. Due to the nature of the particular disease, some patients may receive consultation via MIST with treatment provided by their local physician until such time as the local physician does not have the means or the equipment to provide the necessary treatment. Then the patient must be referred, usually to the Comprehensive Cancer Center at UAB. However, statistics on these eventual referrals are not available for two reasons: 1) Since the patient's name is not required information under the MIST system, the physician rarely volunteers it. This practice disallows longitudinal studies on MIST patients; and 2) the referral may not always be made through MIST. Therefore, the only referral 'statistics' presently available are the estimates of UAB physicians, based on their experience with MIST over the years.

Because of this lack of valid referral data, one cannot itemize the number of calls per patient, and thus as pertains to this study one cannot calculate savings per patient. Rather, one can only assume one call per patient and consequently can only calculate with significant validity the possible savings for all patients (calls) during December 1975. However, it is also possible (assuming one call per patient) to determine the savings to different types of cancer patients (hematology, oncology, gynecological oncology, radiation oncology, and surgical oncology.) But it



<u>Cancer Calls by Specialty</u>		<u>Cancer Calls by Responders</u>	
October 1975			
Family Practitioners	100	Hematology Oncology	150
Surgeons	83	OB GYN	97
OB GYN	65	Pediatrics	57
Internists	54	Surgery	56
Other Specialists	49	Radiology	53
Pediatricians	40	Medicine	13
Radiologists	34	Other Departments	12
	<u>438</u> (17% of total calls)		<u>438</u>
November 1975			
Family Practitioners	73	Hematology Oncology	116
Surgeons	72	OB GYN	110
Internists	57	Surgery	51
OB GYN	51	Radiology	45
Other Specialists	27	Pediatrics	23
Radiologists	24	Other Departments	11
Nurses	5	Medicine	6
Pediatricians	15		324
	<u>324</u> (15% of total calls)		
December 1975			
Family Practitioners	116	Hematology Oncology	133
Surgeons	70	OB GYN	110
Internists	64	Surgery	63
OB GYN	61	Radiology	56
Radiologists	38	Pediatrics	26
Pediatricians	27	Other Departments	20
Other Specialists	26	Medicine	18
Nurses	24		426
	<u>426</u> (19% of total calls)		

must be recognized that there may be some percentage of 'unknowns' since some patients may not be definitely diagnosed at the time of the call.

Even with full computer services, these current problems resulting from the data limitations will not be alleviated. Longitudinal patient studies, patient referral studies, and/or cost per patient studies will never be possible as long as MIST adheres to its current policy of not requiring names in order to insure patient confidentiality. We are not inferring that MIST or any medical provider should reverse this imperative policy. We are merely asserting the opinion that exhaustive cost studies on MIST will probably never be possible under the present system. Therefore, this initial study of some of the possible 'savings to patients' afforded by MIST theoretically should yield results as valid as is currently possible.

#### ANALYSIS OF DATA AND PATIENT EXPENSES

According to the quarterly report for the period October-December 1975 submitted to the Cancer Communications Planning Committee of the Comprehensive Cancer Center (Appendix B), 19 percent (426) of all MIST calls made during December 1975 were cancer-related. The greatest percentage of these calls came from family practitioners, as shown in Table 3. Chart 1 shows that the geographical distribution of these calls was fairly well dispersed throughout the state.

Of the 426 December cancer calls, 93.4 percent (398) concerned specific patients, while the remaining 6.6 percent (28) dealt with cancer-related continuing education activities or drug/equipment information. Even though this small percentage of non-patient-specific calls does feasibly result in increased knowledge for the physician or health professional and thereby probably results in eventual economic savings to future cancer patients, nevertheless these calls will be disregarded in this study due to the nonexistence of a suitable method for evaluating the economic benefits of such 'general information' type calls.

Of the 398 patient-specific calls, the director of the Comprehensive Cancer Center at UAB estimates that 15 to 20 percent (or 17.5 percent average) are eventually referred to the Comprehensive Cancer Center for treatment. Once again, exact statistics are not available, but accepting his seasoned estimate as reasonable one would conclude that 82.5 percent (328.3) of the December cancer patients were saved a trip to Birmingham and a consultation fee because of the availability of MIST. In order to determine the total possible savings to cancer patients during December 1975, one must first calculate the normal expenses incurred in making a trip to Birmingham and then identify the range of consultation fees.

**Travel Costs and Consultation Fees:** In estimating the cost of an average trip to Birmingham, several standards of measure must first be established: 1) Most Alabamians coming to Birmingham for treatment would most likely come by car, and probably would have at least one other person accompanying them. In this study only the patient's expenses will be considered. However, one can assume that more expenses will be incurred if another person accompanies the patient. 2) The average traveling speed used here shall be the legal limit of 55 mph and if the patient has to drive more than 100 miles one-way, he will tend to stay overnight in Birmingham following treatment. These are two elements of support for the '100-miles radius' theory: a) According to John Yarborough (formerly of the National Cancer Institute and now with the Ellis Fischel State Cancer Hospital in Columbia, Missouri), 100 miles from a Comprehensive Cancer Center is the "outer limit for ready access to a one-time consultation for the average cancer patient"; and b) Stan Kramer's survey of radiologists found that the maximum distance radiology patients will travel for once-a-week treatment is 100 miles one-way. If they have to drive more than 100 miles, patients will stay overnight following treatment.<sup>3</sup> Therefore, anyone living outside a 100-mile radius of Birmingham would probably stay overnight, thus incurring more expenses. This 100-mile radius is marked on Chart 11. The abortable costs which shall be considered are itemized in Tables 4 and 5. 3) The consultation fees outlined in Tables 4 and 5 were provided by the director of the Comprehensive Cancer Center at UAB.

**Discussion of Designated Expenses:** The expenses designated as 'estimates' in Tables 4 and 5 (gasoline, food and loss of productivity) seem to be valid for the purpose of simply testing the concept that MIST does provide savings to patients. Short of a 'patient participation' study it is impossible to try to determine each patient's exact cost for gasoline and food due to variations in their respective distances to Birmingham and their particular eating habits.

The 'loss of productivity' is the estimated dollar equivalent of a patient's one-day loss of productivity to society incurred if he has to make a trip to Birmingham for treatment. If the patient is well enough to drive himself, then he himself has lost one day's contribution to society. If he is not well enough to drive himself, the person acting as chauffeur has lost his own day's contribution to society.

3. Personal telephone conversation between Dr. John Yarborough and Edgar D. Charles, Ph.D., April 1976.

TABLE 5.

COST OF TRIP TO BIRMINGHAM IF OVERNIGHT STAY IS REQUIRED (PATIENT LIVES OUTSIDE 100-MILE RADIUS)	
* GASOLINE (Allowing 18¢ per mile and a maximum of 466 miles round trip — Mobile being the farthest point from Birmingham.)	\$83.88
HOTEL/MOTEL (Average of the minimum rates of the two hotels closest to the Comprehensive Cancer Center)	20.00
* FOOD (Average per person @ \$3.00 for 2 breakfasts, \$3.00 for 2 lunches, and \$3.00 for 1 dinner.)	9.00
* LOSS OF PRODUCTIVITY (2 days)	34.88
TRIP TOTAL	\$147.76
CONSULTATION FEE	
HEMATOLOGY ONCOLOGY	60.00
GYNECOLOGICAL ONCOLOGY	30.00
RADIATION ONCOLOGY	50.00
SURGICAL ONCOLOGY	40.00
* ESTIMATEO See discussion below	

TABLE 6.

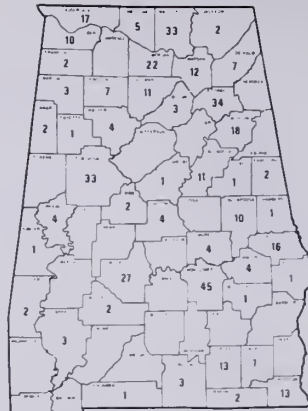
CROSS TABULATION OF 398 PATIENT-SPECIFIC CALLS, DECEMBER, 1975 BY LOCATION AND CANCER TYPE		
TYPE OF CANCER	NO. OF PATIENTS (CALLS) INSIDE 100-MILE RADIUS	NO. OF PATIENTS (CALLS) OUTSIDE 100-MILE RADIUS
HEMATOLOGY ONCOLOGY	108	46
GYNECOLOGICAL ONCOLOGY	68	27
RADIATION ONCOLOGY	47	2
SURGICAL ONCOLOGY	68	19
* UNKNOWN	11	2
* The "unknowns" refer to the 13 cancer patients whose exact diagnoses were not known at the time the calls were made		

TABLE 7. COSTS INCURRED IN MAKING TRIP TO BIRMINGHAM FOR ALL 398 CANCER PATIENTS — DECEMBER 1975 BY LOCATION AND CANCER TYPE

TYPE OF CANCER (Consultation Fee Per Patient)	INSIDE 100 MILE RADIUS @ \$59.44			
	No. of Patients	Consultation Fee	Cost of Trip	Total Cost
Hematology Oncology @ (\$60.00)	108	\$ 6,480	\$ 6,419.52	\$12,899.52
Gynecological Oncology @ (\$30.00)	68	2,040	4,041.92	6,081.92
Radiation Oncology @ (\$50.00)	47	2,350	2,793.68	5,143.68
Surgical Oncology @ (\$40.00)	68	2,270	4,041.92	6,761.92
* Unknown	11	495	653.84	1,148.84
Subtotal "A"	302	\$14,085	\$17,950.88	\$32,035.88
	OUTSIDE 100 MILE RADIUS @ \$147.76			
	No. of Patients	Consultation Fee	Cost of Trip	Total Cost
Hematology Oncology @ (\$60.00)	46	\$ 2,760	\$ 6,796.96	\$ 9,556.96
Gynecological Oncology @ (\$30.00)	27	810	3,989.52	4,799.52
Radiation Oncology @ (\$50.00)	2	100	295.52	395.52
Surgical Oncology @ (\$40.00)	19	760	2,807.44	3,567.44
* Unknown	2	90	295.52	385.52
Subtotal "B"	96	\$ 4,250	\$14,184.96	\$18,704.96
GRAND TOTAL	398	\$18,605	\$32,135.84	\$50,740.84

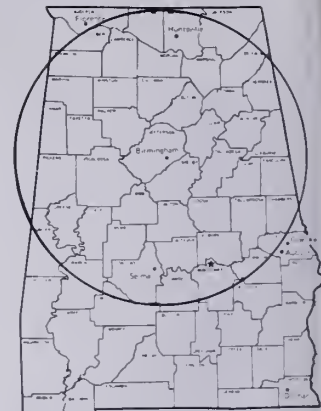
\* The total cost for the 13 "unknown" patients was determined by using the actual cost of the trip and the average cost of consultation (\$45.00)

CHART I



Total Cancer Calls Dec. '75  
(Incoming & Outgoing, Patient-Specific & Non-Specific)

CHART II



100 MILE  
RADIUS OF  
BIRMINGHAM,  
ALABAMA

TOTAL = 426

(Loss of productivity would also occur if the patient were treated in his own home town, though maybe to a smaller dollar loss due to the shorter time period required to obtain the treatment.) Therefore, either way, at least one viable person has lost a day's productivity which is calculated to be \$17.4. This figure may very well be an underestimation since most cancer patients are in the middle or upper socioeconomic categories. However, utilizing the average median annual income of all males and females in Alabama (\$6,976)<sup>4</sup> and the standard 200 working days a year (which incidentally, coincide with physicians' working days), one day's loss of productivity is \$34.88. But it is known that approximately half of all cancer patients are over 65 years of age and therefore are earning a negligible income, if any income at all. Since no income or age data exist for MIST patients, we will assume the standard — that 50 percent are employed and 50 percent are not. Thus the average daily loss of productivity for all December cancer patients is a minimum of \$17.44.

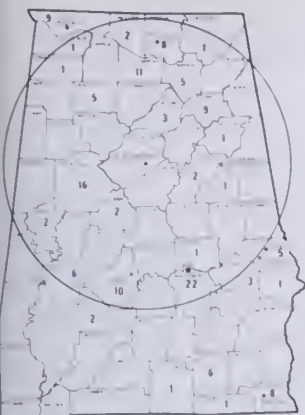
4. BUREAU OF THE CENSUS, Series P-60 No. 101, Table 58, January 1976.

TABLE 8.

RANGE OF POSSIBLE SAVINGS TO DECEMBER, 1975, CANCER PATIENTS. ADJUSTED TO REFLECT MIST OPERATING EXPENSES	
% PATIENTS SAVED TRIP TO BIRMINGHAM (BASED ON 398 PATIENTS)	MINIMUM SAVINGS
* 12.5	\$ 5,620.14
25	11,280.18
40	18,048.28
50	22,560.35
75	33,840.53
** 82.5	37,224.58
100	45,120.70
* Minimum percentage needed for MIST to "break even"	
** Estimated percentage actually saved a trip during December	

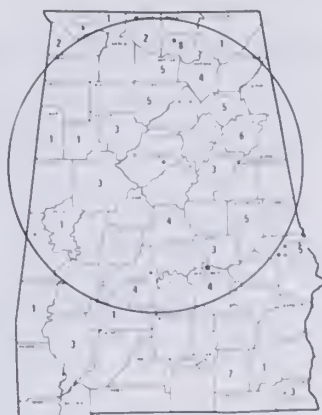


CHART III

Geographical Distribution Of  
Hematology Oncology Calls  
December, 1975

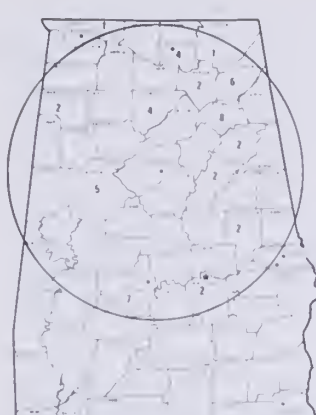
Inside Radius	108
Outside Radius	46
TOTAL	154

CHART IV

Geographical Distribution Of  
Gynecological Oncology Calls  
December, 1975

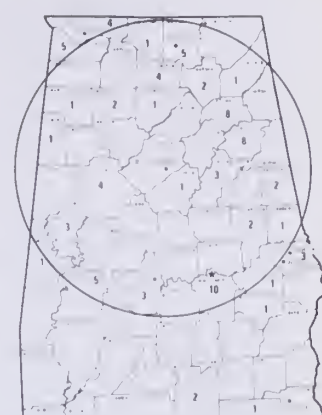
Inside Radius	68
Outside Radius	27
TOTAL	95

CHART V

Geographical Distribution Of  
Radiation Oncology Calls  
December, 1975

Inside Radius	47
Outside Radius	2
TOTAL	49

CHART VI

Geographical Distribution Of  
Surgical Oncology Calls  
December, 1975

Inside Radius	68
Outside Radius	19
TOTAL	87

### RANGE OF ESTIMATED SAVINGS TO DECEMBER 1975 CANCER PATIENTS

What is the actual range of possible savings to cancer patients during the one-month survey period? Due to the variation in transportation costs depending on whether a patient lives within or outside the 100-mile radius of Birmingham, and depending upon the type of cancer he has, a cross-tabulation of location by cancer type must be made before the savings can be calculated. This cross-tabulation appears in Table 6. (Maps showing the geographical distribution of calls by cancer type may be found in Charts III-VI.)

Based on the costs for making a trip to Birmingham and the consultation fees previously identified in Tables 4 and 5, it is now possible to compute for the four cancer-type subgroups their costs in coming to Birmingham for medical treatment. See Table 7.

It has now been established that, had all 398 December cancer patients been referred to the Comprehensive Cancer Center, collectively they would have incurred a minimum of \$50,740.84 in expenses above and beyond their 'direct cost' for treatment. This figure thus represents the 'savings to patients' for one month alone. Adjusting for MIST's monthly operating cost of \$5,620.14, the total savings then becomes \$45,120.70.

However, it is not known exactly how many cancer patients were actually saved a trip to Birmingham in December through use of MIST. And this number will never be known unless specific patients consent to participate in a long-range cost study of MIST, thus overcoming the current data limitations due to the observed policy of patient confidentiality. The director of the Comprehensive Cancer Center has estimated that 82.5 percent of MIST's December cancer patients were saved a trip to Birmingham because they were able to receive medical consultation over the telephone and treatment in their own home. This estimate, if not exact, has been confirmed as being very close to the truth of the situation by the executive director, the coordinator, and the operators of MIST. If this estimate of 82.5 percent is nearly correct, then savings for one month

would amount to \$37,224.58. But regardless of the validity of this estimate, savings are still realized (though in varying amounts), as can be seen in Table 8.

As has been previously determined, the operational cost of MIST for cancer calls for one month is \$5,620.14. Referring again to Table 8, one can see that it is not necessary to save even 82.5 percent of the patients a trip in order to reach the cost/savings 'break even' point. Rather, only 12.5 percent (or 49.75 out of 398 patients) need to be saved a trip in order for MIST to be an economically sound program. If the people who work with MIST day in and day out can assure us that approximately 328 of the 398 cancer patients were saved a trip to Birmingham during December 1975, then surely it should not be too hard a task to accept that at least 49 patients were saved a referral. That is the minimum. Any percentage above that can simply be regarded as 'excess' savings provided to society by the MIST program.

### CONCLUSIONS

MIST is clearly helping to hold the line on potential increases in medical expenditures. Once again it should be emphasized that the point at which cost equals savings is only 12.5 percent. Since the 82.5 percent level was reached during this survey period, MIST is definitely 'paying for itself' to say the least, with savings in varying magnitudes realized regardless of the percentage of patients actually saved a trip to Birmingham. And this is only part of the picture. If only 19 percent of all MIST calls during December 1975 yielded such impressive marginal benefits for the cancer sector alone, think of the potential savings MIST could provide all other patients per month, or per year.

Despite the assumptions necessitated in this study due to lack of hard data, the foregoing analysis should justify overall acceptance of the stated hypothesis: MIST provides the patient with access to health care consultation and quality medical treatment, and at the same time reduces the patient's potential total cost for such services. However, this reduction in potential costs holds true only for those patients who are not referred to the Comprehensive Cancer

## The Economic Benefits Of MIST

Center, and since these patients will not make the trip they will never actually pocket these savings. Rather, the savings discussed here should be regarded as *savings to society*. Therefore, MIST's total operating budget of approximately \$130,000 a year is certainly worth its support from taxpayers.

In addition to holding down rising expenditures for medical care, this initial study shows that MIST has a vital role in health extension throughout the state of Alabama. Of the 398 December cancer patients, 96 lived more than 100 miles from Birmingham while 302 lived less than 100 miles away, with the majority of all patients living at least 50 miles from Birmingham. Thus MIST is providing patients in all areas with easy access to tertiary care when it is deemed necessary, as well as improving the quality of primary and secondary care by bringing to physicians in outlying areas increased knowledge of cancer treatment techniques, thereby making quality medical care available where it is of the most value—in the patient's own place of residence.

MIST's role in combating cancer in Alabama is further documented by the fact that 16 of the top 20 counties of Alabama with the greatest expected incidence of cancer were in the top 20 utilizing MIST during December 1975<sup>5</sup>.

MIST should serve as an example of success for other states to consider. MIST is improving health care in nonmetropolitan areas, it is providing physicians throughout the state with the latest medical information available, it provides easy access to tertiary care when necessary, it is

a vital resource that can be maintained for a very small percentage of its savings to society per year, but most important of all, MIST is contributing to the well-being of Alabamians.

One cannot consider a program such as MIST to be a luxury, for as the old saying goes: "What's good medicine is good economics."

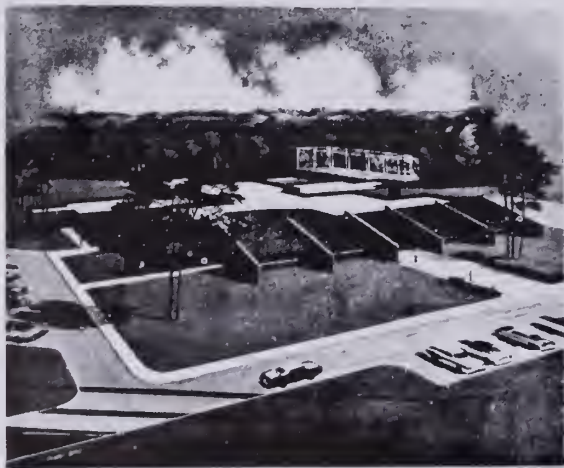
### ACKNOWLEDGEMENTS

This paper was originally prepared as a research project for a graduate course in health economics ('Advanced Public Health Practice and Administration'), Division of Community Health, School of Public and Allied Health, the University of Alabama in Birmingham, Edgar D. Charles, Jr., Ph.D., Associate Professor.

5. Dollar, Margaret B., "MIST AND CANCER IN ALABAMA," In-House Study, May 1976.

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7. Expected Annual Cancer Incidence in Alabama, The Cancer Epidemiology Service, Comprehensive Cancer Center, University of Alabama in Birmingham, circa 1974. ●



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## Digest of actions—State Committee of Public Health

*The State Committee of Public Health took the following actions at its meeting on May 18, 1977:*

- Confirmed appointment of Deputy Registrar in Colbert County.
- Approved for publication the current Controlled Substance Schedule.
- Received a report on the first confirmed cholecystitis case due to El Tor cholera. This is the first reported case in the United States since 1973 and the second non-laboratory acquired infection since 1911. No continuing hazard resulting from this unusual case exists.
- Measles outbreak in Northwest Alabama resulting in a widespread immunization program was predominantly Rubella according to laboratory tests. Recommendations on measles immunization will be published in the *M.D.* as soon as possible.
- Adopted State EMS Advisory Board recommendations establishing administrative policy and procedures for drug and intravenous supply mechanisms for use by EMT Intermediate and Paramedic activities statewide.
- Approved an extension of Assurance of Need for Huntsville Hospital; approved an expansion of 32 beds for the Summerford Nursing Home, Falkville; and a 36 inpatient psychiatric bed facility for Baptist Medical Center, Montgomery.
- Denied the Carraway Methodist Medical Center request for ancillary facilities including open heart surgery, unless the applicant requested a sixty-day delay to permit further evaluation of the request.

- Received a report on the 1122 status of nursing homes indicating that 18,937 beds were in service and 165 beds were under construction without 1122 approval.
- The policy on interpreting State Medical Facilities Plan on a line item basis, adopted in April, has been challenged by HEW and the Committee authorized delay of implementation pending an opinion from Federal General Counsel.
- Was advised regarding an allocation for Regionalized Perinatal Care in the amount of \$508,000 and an unobligated appropriation of \$436,800 with advice to be solicited from the Perinatal Advisory Committee.
- Was advised regarding the recruitment of an obstetrician to direct the MCH program and formation of a Search Committee to assist in obtaining qualified applicants.
- Referred to the Council on Dental Health, for evaluation and advice, articles by the American Dental Association dealing with potential mercury hazards of dentists and their employees.
- Approved Medicaid Plan Amendment dealing with the payment of professional providers fees.
- Approved a carefully worded request for proposal specifying bid requirements for the fiscal intermediary contract beginning October 1, 1977.
- Recommended an increase in 10% in the dispensing fees for retail, institutional and governmental pharmacies effective June 1, 1977.

CONTINUED ON PAGE 64

## Digest of actions of the State Board of Censors

*The Board of Censors took the following actions at its meeting on May 18, 1977:*

- Approved Financial Statement for period ending April 30, 1977, which shows receipts in the amount of \$206,540.11 and disbursements in the amount of \$420,745.44.
- Authorized expenses for Dr. George Oetting to attend the AMA Meeting of State Chairmen of Continuing Medical Education to be held in conjunction with the AMA Annual Convention, June 19-23, 1977, in San Francisco.
- Rejected the principle of multiple county medical society membership and established a policy whereby a physician may hold full active membership in only one county medical society, and that an amendment to the State Constitution and Bylaws be prepared to permit county medical societies to alter their bylaws to provide for any type of affiliate non-voting membership they may desire.
- Authorized Dr. John B. Rice, Jr., to rent at his discretion the film entitled, "A Member of the Club."
- Instructed Mr. Lon Conner to proceed with coordination of efforts with A. A. Stamler, M.D., of Decatur, in equipping hospital in Cuilapa, Guatemala.
- Appointed Ernest E. Hale, M.D., to serve on the Advisory Board to the University of Alabama School of Medicine.
- Authorized Dr. John B. Rice, Jr., to proceed with the development of non-coercive methods of dealing with abnormal physician behavior.

- Granted excusals from the 1977 Orientation Program to Dr. Richard Reynertson, Dr. Boyd K. Honeycutt and Dr. Wyatt Simpson, Sr.
- Received as information a status report from Mr. Conner on the establishment of a fund on a voluntary basis to financially assist families of disabled physicians.
- Received a report from Margaret S. Klapper, M.D., regarding State LCCME (Liaison Committee on Continuing Medical Education) and authorized MASA's Council on Medical Education to set up a subcommittee on accreditation which would report to the Board of Censors through the Council and that the nominees for that Subcommittee be submitted by the Council to the Board for concurrence.
- Received as information a written report from the Communications Department regarding the Practice Management Workshops.
- Received as information the Report of the Education Department and approved sponsorship of AMA regional CME meetings on an annual basis alternating between Birmingham and Mobile or acceptable alternate sites.
- Voted to request the county medical societies within Peer Review District 7 to submit nominations for appointment by the Board to the District 7 Peer Review Committee to replace Edgar W. Branyon, Jr., M.D.
- Received as information a status report on negotiations for a group health insurance program. ●

# Continuing Education: A State Of Mind

CONTINUED FROM PAGE 13

TABLE B

## UAH SPMC WEEKLY SCHEDULE (February 28 - March 4, 1977)

### MONDAY

- \* Pediatric Lecture, "Pediatric Emergency," ACC
- \* Surgery Seminar, "ENT III," ACC
- \* Pediatric Pathology Lecture, HH
- \* UAB Pediatric Grand Rounds, ACC
- \* Surgical Seminar, HH

### TUESDAY

- \* OB-GYN Clinic—Health Department
- \*\* All junior medical students and preceptors:  
Seminar ACC  
Clinic Conference

### ADVISORS OFFICES

Huntsville/Vanderbilt Medical Ethics Lecture, ACC  
(general Continuing Education Units available)

### WEDNESDAY

- \* Psychiatry Conference, HH
- \* Medicine Pathology Conference, HH
- \* Neonatal Lecture, ACC
- \* OB-GYN Luncheon Conference, ACC
- \* Surgery Seminar, "Ophthalmology I," ACC
- General Faculty Meeting, ACC

### THURSDAY

- \* Medicine Radiology Conference, HH
- \* "Thyroid Function Test, II," ACC

### FRIDAY

- \* Pediatric Staff Conference, HH
- \* Pediatric X-Ray Conference, HH
- \* Residents' Pediatric Conference, HH
- \* Surgery Seminar, "Ophthalmology II," ACC
- \* Pediatric Lecture, "Poisoning," ACC

\* Approved for AMA Category I Credit Hours

\*\* Approved for AAFP Credit Hours

ACC=School of Primary Medical Care Ambulatory Care Center

HH= Huntsville Hospital

student and resident programs are approved for AMA credit hours under the umbrella of accreditation for the University of Alabama School of Medicine as a whole. The weekly Family Medicine conferences and seminars on Tuesday afternoons are approved for AAFP hours on an on-going basis. The schedule for a typical week (Table B) indicates the academic smorgasbord available throughout the academic year to physicians in proximity.

From September 9 to 11, 1977, at Point Aquarius, the School of Primary Medical Care will offer its first continuing education conference jointly sponsored with the Alabama Chapters of both the American Academy of Pediatrics and the American Academy of Family Physicians. *Advances in Pediatrics and Adolescent Medicine* will have speakers from all three campuses of the University of Alabama System Medical Education Program and from the School of Medicine in Mobile.

Guest speakers will be Karen Hein, M.D., Assistant Professor of Pediatrics and Medical Director of the Juvenile Center at Montefiore Hospital and Medical Center of Albert Einstein College of Medicine in New York; and Saul Krugman, M.D., Professor of Pediatrics at New York University School of Medicine.

In the process of trying to train students and residents to be competent, caring physicians, we know that unless they realize that their medical education is incomplete and will always be incomplete, they can be neither truly competent nor truly caring. In the acknowledgment of that chronic state of the need to learn is the beginning of professional wisdom. ●

*This report was prepared with the help of Thalia Haak, Coordinator for Communications, SPMC.*

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CONTACT: Sidney N. Busis, M.D., Clinical Professor Of Otolaryngology, 1022 Scaife Hall, Univ. School Of Med., Pittsburgh, PA. 15261.



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# “OPERATION

BY ARTHUR A. STAMLER, M.D., DECATUR, ALABAMA

“Operation Outreach,” a joint project of The Medical Association of the State of Alabama and the “Partners of the Americas” program, gained approval of the Board of Censors on May 18, 1977, and is now a vital activity of MASA. This is a cooperative effort between physicians of Alabama and Guatemala, designed to promote a better understanding within the medical communities, along with programs of mutual assistance.

“Partners of the Americas” is an organization composed of committees of private individuals in 42 states of the United States and in counterpart Latin American countries. Alabama is “partnered” with Guatemala in the program, in a relationship that is regarded as one of the most successful of the 42 committees. Alabama’s involvement concerns cooperative programs in education, civil government, health, agriculture and business, and in a unique partner-cities arrangement in which 12 Alabama cities exchange cultural backgrounds, person-to-person understanding, and knowledge with 12 Guatemalan cities.

It is only natural that bonds of interest should exist between the medical communities of Guatemala and Alabama, and “Operation Outreach” is envisioned as one expression of this shared feeling.

Alabama has about 3.5 million people and about 50,000 square miles. Guatemala, one of six Central American nations, and the one most closely located to the United States, has a population of nearly six million, and about 40,000 square miles. Of this number, about ½ are of Mayan Indian origin, who speak primarily one of 2 indigenous indian dialects, and are culturally distinct. The remaining population, known as ladinos, speak Spanish, and are largely of Spanish or of Spanish-Indian extraction. The Mayans are chiefly farmers and are generally poor — average income is \$1 per day. Their attained educational level is low but improving. Their health status is complicated by poor sanitation, sub-optimal nutrition, and lack of understanding of modern preventive and therapeutic methods—all aggravated by maldistribution of physicians.

A regional hospital of some 200 beds has been built at Cuilapa, about 35 miles southeast of Guatemala City. It is incompletely equipped, and this represents an opportunity and a challenge for Alabama physicians, and others in the medical community, to respond to a genuine need among our neighbors to the south. Hospital equipment, office equipment, patient needs, and teaching aids are desperately needed — now! Available funds in Guatemala will not permit purchase of these items. In addition, a residency-training program is being developed at Cuilapa for graduates of San Carlos medical school in Guatemala City. In order to facilitate teaching, and to demonstrate North American technics, plans are being drawn up to invite Alabama physicians to Cuilapa and elsewhere in 1978 or 1979, as soon as domiciliary facilities are completed, for brief periods.

A variety of other cooperative programs are under consideration. The devastating earthquakes in Guatemala last year revealed a need for advanced planning in areas of medical assistance. Numerous well-meaning physicians with good intentions arrived in Guatemala without the specialized skills in traumatology which were needed. A large number of them proved to be more of a burden than they were helpful. Advance disaster-planning might have lessened some of the problems which arose, and segments among Alabama physicians will be asked to meet with Guatemalan medical officials.

Medical missionary work fascinates the American doctor who sees an opportunity to assist those who have limited access to health care. There are practical problems which impede a physician who wishes to practice in another country, no matter how noble his intentions—licensure is, of course, one. An attempt is underway to reduce the red tape, and progress is anticipated.



# OUTREACH''



## ALABAMA AND GUATEMALA

Lastly, medical meetings in Alabama and in Guatemala, are being planned. In order to encourage our Guatemalan colleagues to meet here, a fair measure of traditional Southern hospitality seems in order. Some Alabama physicians may wish to host their Latin counterparts in their homes, and permit them the professional privileges of observing our technics in our offices and our hospitals—and, of course, on our golf courses. "There is much to be learned, both ways, culturally, socially, and medically, in interchanging thoughts and opinions with those neighbors of ours who share the same piece of real estate—those neighbors who in many ways have been complete strangers to Alabamians," so says John Bloomer, editor of The Birmingham News and president of Alabama Partners of the Americas. "We in Alabama are enjoying deeply the growing friendship with a stimulating Latin society."

*Supplies needed now for the Hospital de Cuilapa are listed below.* It is requested that all items be held at their present locations pending accumulation of as complete a list as possible. Transportation plans are under development. Your local hospital (especially the storage rooms of used equipment), friends in the surgical, office, and furniture supply businesses, and your own excess but good items are suggestions for sources. If desired, equipment may be donated to "Partners of the Americas" for tax deductibility. Money will also be accepted, with checks made out to "Partners of the Americas" for tax purposes—send checks to either of the addresses below. All equipment should be new, or in good working order; it need not be the latest models. In fact, if you are considering purchase of new office equipment soon, think of donating the out-dated items. Please send a list of available items to Lon Conner, Executive Director of MASA in Montgomery, or to myself at 1121 Somerville Road, SE in Decatur, Alabama, 35601. Address any questions to me, or telephone me at office 353-8330, or home 353-3874.

**Isolettes**—10 (the older Armstrong units are acceptable, but Isolettes are much preferred)

**IPPB machines**—4 (i.e., Birds, Bennets, etc.)

**Air conditioners**—4 (in-the-window types, 14,000 to 18,000 BTUs, 110 volts only)

**Fans**—floor-standing types, and in-window types; 4 are needed.

**Croupettes**—with ice and oxygen chambers, complete with tenting. A request for 10 units was made.

**Oxygen manometers**—10 units (the 2-gauge, tank-type units with water bottles attached)

**Blood pressure apparatuses**—of floor standing type. 4 units are needed and may be of mercury or aneroid type.

**Resuscitators**—2; these are the portable "fire department" types

**EKG machines**—2 are requested, with extra paper rolls; all wiring and leads for each machine are to be complete.

**Typewriters**—6; the wide-carriage machines were requested; any type-style.

**Refrigerators**—10 to 20 cubic feet each, and 4 are needed, plus an additional blood-banking unit (blood is now being stored in an ordinary kitchen-style unit).

**Retroprojector**—1 (sometimes called an opaque projector)

**Slide projector**—35 mm. — 1 (Kodak Carousel type)

**Anesthetic machine**—2 are requested.

**Office duplicator**—(of the Mimeograph, or the gelatin spirit duplicator type) in order to make 50-100 copies at a time.

Other hospital equipment will be acceptable, including diagnostic items. One specific request included an x-ray machine for diagnostic purposes of 300 milliampere capacity in working order. Surgical instruments would also be appreciated.

# Do doctors still make house calls?

Most people would answer "No" to that question.

But the truth is that a lot of doctors still make some house calls. Not as many as did physicians of a generation past, to be sure, but more than might be imagined—more than 17 million per year.

Physicians generally agree that they can actually do more for their patients in the hospital or in their offices, where extensive diagnostic equipment and facilities and skilled staff are at hand.

But all also admit that in certain circumstances, the house call can be an effective and important facet of the physician-patient relationship.

The most recent statistics available showing more than 17 million house calls made annually in the United States mean that about 2 per cent of all physician services are being delivered at home.

Granted, that number is between a third and a quarter of the 63 million house calls made 20 years ago, but to the question, "Do doctors still make house calls?" the answer is "Yes."

Patients of all income levels are visited at home. About 40 per cent of those seen are in families with an annual income of less than \$5,000 and another 40 per cent are in families earning \$10,000 and more. A further breakdown shows 25 per cent of the doctors' house calls are in homes of less than \$3,000 annual income and 21 per cent take place in homes where the annual income exceeds \$15,000. Patients in the \$5,000 to \$10,000 income bracket account for about 20 per cent of all house calls.

Visits to elderly patients—persons 65 and older—are the most prevalent, accounting for 51 per cent of all house calls. Persons in the 45 to 65 age bracket are the home patients 25 per cent of the time, with illnesses of children from ages 5 through 14 being the reason doctors go to the home 7 per cent of the time. All other age groups combined accounted for the remaining 17 per cent of physician visits to the home.

Of those patients seen at home, 56 per cent are disabled or limited in activity, with 44 per cent having no problems of limitation.

Far more women and girls (62 per cent) are seen by doctors on house calls than are men and boys.

The vast majority (70 per cent) of house calls are made in cities, with rural patients accounting for 27 per cent of the total number made, and farm family members representing 3 per cent of the home visits by physicians.

Almost half (44 per cent) of the house calls are made in the northeastern region of the United States, with the north central and southern states residents accounting for 23 per cent each, and visits by doctors in western states providing the remaining 10 per cent.

General practitioners or family physicians are the groups visiting the homes most often—77 per cent of the time, with internists providing 8 per cent of the house call care

and all other specialists representing the remaining 15 per cent of home visits.

A summary of the 1976 Patient Attitude Survey conducted by Medical Economics Magazine states that "the relatively rare physician who still makes emergency house calls ranks high with patients."

Obviously, enough of those patients polled had been recipients of house calls that they felt they could evaluate the physician's level of concern.

And, one might ask, is "relatively rare" an accurate description of more than 17 million annual home visits by physicians? ●

## DIGEST OF ACTIONS

CONTINUED FROM PAGE 59

- Approved the use of a five-digit coding system (CPT-4) effective August 1, 1977, as the only acceptable manner of coding.
- Referred to the Pharmaceutical Committee, for concurrence, the approved drugs for inclusion in the Alabama Drug Code Index.
- Requested Medical Services Administration to look into problems concerning prior approval for nursing home admissions.
- Approved the request to apply for a waiver to CFR-250.30 to enable the participation of Alabama Medicaid in a clearly defined fee schedule and approved a statewide fee schedule for implementation.
- Was advised by the State Health Officer of the analysis of the Medicaid funds and completely unprecedented and unanticipated increases in costs in March and April hospital claims which indicated more than double the number of inpatient hospital days from February to April, an increase in average cost per day for inpatient hospital services from \$101 to \$130, and the result in patient hospital costs increase from \$2.2 million in February to \$5.8 million in April. The Committee and the Governor have been advised that at this rate of expenditure, the Medicaid budget would experience a deficit of over \$4.5 million before September 30, 1977, and would require a State share of \$1.25 million to meet this deficit. The Committee requested constant surveillance of this trend in the immediate future with the anticipated action to reduce services at an early date, or in lieu thereof, to terminate the Medicaid program when the appropriation was exhausted.
- Was advised that the State Health Officer, in concert with the State Veterinarian and representatives of the Veterinary Association, have met as required by Act 753 and established the rabies vaccination fee for 1977 to be retained at \$3.00 for public clinics. ●



## CATALOG OF VIDEOCASSETTE TAPES AVAILABLE FOR MASA MEMBERS

Listed below is a complete catalog of all videocassette tapes available for free checkout from the Education Department of MASA. These tapes, produced by the Network for Continuing Medical Education, deal with a great variety of medical topics of interest to Alabama physicians. Each tape lasts about one hour and most present three different topics. These tapes should make a very interesting program for medical societies, inservice gatherings or just further information for one doctor. Each of these programs qualify for one hour of Category 1 CME credit if your institute or group is accredited for continuing medical education and you conduct a post-videotape seminar. If your program cannot meet this criteria, credit may still be claimed as Category V, (A). To view these, you will need access to equipment that can play 3/4" videocassettes with a colored television monitor. To get these tapes simply write or call the Education Department at 263-6441 and let us know the number of the tape that you desire. These are available normally for a two week period but extensions can be granted if needed for further viewing.

### TAPE NO.

- 233 The Diagnostic Challenge of Chest Pain, Parts I & II Clinical Pathways of Cardiomyopathy
- 234 Inguinal Hernia Repair: The Shouldice Technique, The Pill and The Informed Patient, Parts I & II
- 235 Cutaneous Signs of Internal Malignancy, The Exercise Test, Bone Neoplasms in Children: Early Detection
- 236 Congestive Heart Failure: Precision Diagnosis Pediatric Progress: Subdural Fluid Collections, Bedside Pulmonary Artery Catheterization
- 237 Congestive Heart Failure: Successful Management, Iatrogenic Drug Problems, Internal Jugular Vein Catheterization
- 238 The Team Approach to Chronic Pain, The Comatose Patient: Pathophysiology Cervical Spine: Displacement or Disease?
- 239 The Comatose Patient: Immediate Management and Evaluation, Outpatient Treatment of Hemorrhoids, Purpura: Interpreting the Significance
- 240 Injuries of the Young Athlete, Urinary Tract Calculi, Iatrogenic Problems: Untoward Reactions to Contrast Studies
- 241 Chronic Active Hepatitis, Techniques in ADL For the Adult Disabled, Fever of Unknown Origin: Diagnostic Challenge
- 242 Vulvar Lesions: A New Awareness Acne, Lower GI Bleeding: Angiographic Evaluation
- 243 Headache, Diagnosis of Common, Painful Hand Disorders, The Endocrine Evaluation of Overweight Children
- 244 Blunt Chest Trauma — The First Hours, Behavioral Conditioning: Therapy for Phobias, Peripheral Arterial Flow: A Noninvasive Assessment
- 245 Head Trauma: Evaluation For The Nonneurosurgeon, Office Gynecologic - Cancer Screening, The Shoulder Examination
- 246 Pulmonary Embolism: Levels of Evaluation and Treatment, Tuberculosis: A Clinical "Sleeper", A Physiologic Approach to the Diagnosis of Hypothyroidism
- 247 When and How To Do A Tracheotomy, Minimizing Adverse Effects of Diuretics, Treatment of the Complicated Hypothyroid Patient
- 248 Therapeutic Trials: Ethics of Clinical Experimentation, Parts I & II, Fat Embolism: A Reversible Killer
- 249 Beta Blockers in Cardiac Disease, The Clinical Significance of Abnormal Fingernails, Intellectual Decline: Senile Dementia or a Treatable Disorder? Part I
- 250 Deep Venous Thrombosis: Differential Diagnosis, Fertility Drug Update, Intellectual Decline: Senile Dementia Or A Treatable Disorder? Part II
- 251 Clinical Spirometry: For Which Patients? Handling Athletic Injuries: Evaluating The Knee Emergency Management of a Patient With Dyspnea

### TAPE NO.

- 252 Treatment Tips For Common Foot Problems, New Pulmonary Function Tests: The Early Detection of Lung Disease, Hyperlipidemia And Heart Disease: Significance and Screening
- 254 Total Parenteral, Nutrition: Current Clinical Applications, The Daily Diet, The Infusion Technique
- 255 Hyperlipidemia and Heart Disease: The Drug Approach, Screening Mammography: A Second Look, Myasthenia Gravis: Not A Rare Disease
- 256 High Risk Pregnancy - Avoiding Surprises, Behavior Modification: Treatment or Coercion? Parts I & II
- 257 Hyaline Membrane Disease & Intrauterine, Assessment of Lung Maturity, The Clinician and The Lab: Infectious Disease, Dyspnea: Signal of Disease
- 258 Hypertensive Retinopathy: Fundusoscopic Features, Lactic Acidosis: Pathogenesis & Etiology, Lactic Acidosis: Differential Diagnosis & Treatment
- 259 Fiberoptic Bronchoscopy: Its Use & Advantages, Alcohol Ingestion: Acute Metabolic Syndromes, Cat Scanning: A New Dimension
- 260 The Selective Use of Radiographs and Lab Tests In Rheumatic Disease, The Function of Phagocytes, Bacterial Infection and Disorders of the White Cell
- 261 Extra-Articular Manifestations of Rheumatoid Arthritis: Keep A High Index of Suspicion, How To Assess The Whiplash Injury, Cardiac Rehabilitation: A Status Report
- 262 Viral Influenza: From Onset to Aftermath, Hyperuricemia, Gout & Pseudogout: Where Errors Occur, Early Assessment & Treatment of Club Foot
- 263 Toxemia and Hypertension in Pregnancy, Isoniazid; The Liver & The Tubercle Bacillus, Common Foot Problems In Early Childhood
- 264 Differential Diagnosis of Oral Lesions, Drug Spotlight: Antiarrhythmic Drugs, The Dilemma of Chronic Low Back Pain
- 265 Benign Prostatic Hyperplasia: Management Decisions Carcinoma Of The Prostate: Diagnosis And Management, Spinal Fracture: A Chance To Prevent or Minimize Cord Damage
- 266 The Treatment of Anaerobic & Mixed Aerobic/Anaerobic Infections, Parts I, II & III
- 267 Genetics For The Generalist: Autosomal Dominant & Recessive Disorders, Genetics For The Generalist: Chromosomal & X-Linked Disorders, Genetics For The Generalist: Multifactorial Disorders
- 268 Terminal Cancer: The Hospice Approach to Pain Control, Terminal Cancer: The Hospice Approach to the Family, Congenital Hip Dislocation
- 269 Drug Spotlight: Bronchial Asthma: New Concepts In Mechanisms and Management, Medico-Legal Aspects of CPR, Rational Use of Antibiotics in Surgical Patients

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## HYPERTENSION MEDICAL KNOWLEDGE SELF-ASSESSMENT PROGRAM

For more than a year, the Editorial Board of *Dialogues in Hypertension* and the National Board of Medical Examiners have collaborated on the development of a Hypertension Medical Knowledge Self-Assessment Program. It is anticipated that more than 30,000 primary care physicians will participate in this continuing medical education program. The program is developed and produced by Health Learning Systems, Inc., under an educational grant from Smith, Kline and French Laboratories.

Prepared by leading authorities, this program provides convenient access to an accurate self-evaluation of your current knowledge and detailed exposure to recent advances in clinical procedure and theory. The post-course self-assessment is prepared under the auspices of the National Board of Medical Examiners and gives you precise information on the increased level of knowledge you have achieved at completion of the course. Assessments are computerized, and entirely confidential, to insure anonymity and accuracy.

Program materials include:

—Pre-Program Self Evaluation with the answer sheet mailed to the National Board of Medical Examiners for scoring.

—Guide to the Clinical Management of Hypertension (syllabus) with indexed study material adapted from *Dialogues in Hypertension*.

—Cassette Tapes, indexed to pre-program self-evaluation. Recognized authorities discuss current concepts in diagnosis and management of hypertensive patients.

—Post-Course Self-Assessment answer sheet is mailed to the National Board of Medical Examiners for confidential computer prepared scoring and analysis.

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- 270 The Cyanotic Infant: Finding The Cause, Cyanotic Heart Disease In Infants, Corticosteroid Therapy and Inflammatory Bowel Disease
- 271 Hypertensive Emergency Workshop, Parts I & II, Systemic Mycosis: How To Select and Interpret The Tests
- 272 Ovarian Cancer: Diagnosis And Treatment of Common Epithelial Tumors, Parts I & II Gait: Normal and Abnormal, Part III
- 273 The Diagnosis of Hyperthyroidism: A Decade of Progress, Parts I & II Primary Biliary Cirrhosis: Management of an Enigma, Part III
- 274 Evaluating Patients With Occlusive Cerebrovascular Disease, Papilledema vs. Pseudopapilledema: Recognition and Diagnostic Considerations, The Beta-Adrenergic Theory of Atopic Disorders
- 4149 "How I Do A Subclavian Venipuncture"
- 2007116  
Treatment of Coronary Heart Disease - PostInfarction Complications
- 1305607 Management of Stroke - Part II

As an organization accredited for Continuing Medical Education, the American Heart Association certifies that this continuing medical education offering meets the criteria for 40 credit hours in Category 1 for the Physician's Recognition Award of the American Medical Association provided it is used and completed as designated. Similarly, the program is also acceptable for 40 prescribed hours by the American Academy of Family Physicians.

All course materials are available free to Alabama physicians. Contact your local Smith, Kline and French representatives for enrollment. ●

### 1977 SCIENTIFIC SESSIONS RECORDINGS

The presentations listed below from the Scientific Sessions of the Annual Session at Mobile are available for purchase at \$3.00 each. (We regret that technical difficulties prevented us from getting reproducible tapes on all presentations). Please check the desired tapes and send your check for the total amount to the MASA Education Department, P. O. Box 1900-C, Montgomery, Alabama, 36104.

- [ ] Samuel L. Stover, M.D., "The Primary Physician's Role In Spinal Cord Injuries"
- [ ] John H. McAtee, M.D., "Rehabilitation of the Emphysematous Patient"
- [ ] Maurice J. Jurkiewicz, M.D., "Differential Diagnosis of Masses in the Neck"
- [ ] Howard L. Holley, M.D., Jerome Cochran Lecture, "The Alabama Physician; A Teacher Looks Back"
- [ ] Gene V. Ball, M.D., "Uncommon Manifestations of A Common Syndrome"
- [ ] Joe G. Hardin, Jr., M.D., "Rheumatoid Variants—New Concepts and Diagnostic Technics"
- [ ] John S. Gould, M.D., "Hand Surgery in the Rheumatoid Arthritis Patient"
- [ ] S. Timothy String, M.D., "Enteric Vascular Insufficiency"
- [ ] Arthur J. Donovan, M.D., "Perforated Duodenal Ulcer"
- [ ] William O. Barnett, M.D., "Intestinal Obstruction"

Please send the above checked tapes to:

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POSITIONS AVAILABLE

**ESTABLISHING FAMILY PRACTICE PARTNERSHIP.** Modern well equipped office. No investment. Excellent remuneration with early full partnership. Adequate time off or continuing medical education or participating in good local deer, dove, and turkey hunting or water skiing and fishing. Chester Singleton, M.D., 703 Tuscaloosa St., Greensboro, Ala. 36744.

**PRIMARY CARE PHYSICIANS** wanted to locate in West Central Alabama. Rural Health Initiative program has choice of several possible sites with salaries up to \$40,000. Some communities have established clinics. Other communities are willing to build to suit physician. Individual or group practice possible. Salaries for all staff guaranteed until practice is self-supporting. Generous fringe benefits. Write Health Development Corporation, P. O. Box 487, Carrollton, Alabama 35447, or call Frank Cochran COLLECT 367-8138, evening hours 553-2198.

**EXCELLENT OPENING** for Family Physician in Gadsden, Alabama. Active practice with over 2,000 active charts. No charge for practice. New office beautifully furnished. Two Ob-Gyn doctors in building. Present doctor retiring. Drs. G-G-G, 808 South 4th Street, Gadsden, 205-543-3977.

**ACTIVE FAMILY PRACTICE** with office adjacent to 110 bed JCAH hosp. in excellent South-Central Ala. town, excellent schools, 8 friendly physicians to share call. \$75,000 average net income with controlled hours and pleasant patients. Will sell practice/rent office at very reasonable rate. Box A, Journal, 19 S. Jackson St., Montgomery, Ala. 36104.

**WANTED:** General practice psychiatrist to work with community mental health program. Have an understanding of community mental health work, able to work with a wide variety of staff, willing to do some travel within catchment area on scheduled basis. Contact Montgomery Area Mental Health Center, 1616 Mt. Meigs Road, Montgomery, Alabama. Telephone 263-7541.

**PHYSICIAN NEEDED FOR A MODEL RURAL PRIMARY HEALTH CARE CENTER.** Excellent Hunting, Fishing, Water Sports, Greyhound Racing and Pari-Mutual Wagering. \$35,000 - \$40,000 Salary Range plus 18% Fringe Benefit Package, two weeks vacation, office hours 8-5 daily with no evening duties or calls. For further information please contact: James W. Coleman, West Alabama Health Services, Inc., P. O. Box 449, Eutaw, Alabama 35462, (205) 372-9225.

**ALABAMA:** Emergency Physician: Full time, \$70,000 + per year, fee for service, group health insurance, malpractice paid, funded continuing education, 305 bed regional medical center plus 350 bed community hospital and 100 bed community hospital with inhouse and outpatient responsibility. New ED facilities within 18 months with interns and resident teaching. Contact: Medical Director, P. O. Box 9639, Marina del Rey, CA 90291, Phone (213) 822-1312.

**CARDIOLOGISTS—Doctors Hospital, Jackson, Mississippi,** offers an excellent opportunity with benefits for two board certified cardiologists. New professional bldg. to open in September, 1977. For further information contact Mr. Harold L. Burton, Administrator (601) 982-8321 or send resume to Doctors Hospital of Jackson, 2969 University Drive, Jackson, MS 39216.

**PRIMARY CARE PHYSICIAN** wanted to locate in Northern Alabama town with population of 14,000 with county population of approximately 55,000. New modern 100-bed hospital with full range of services including availability of specialist in most fields and coverage of Emergency Department every night and weekends. Office suites are available rent free and other financial arrangements can be made relative to guaranteed minimum income and relocation and moving expenses. This area is noted for excellent secondary schools in addition to the availability of fishing, camping, hunting and other recreational opportunities. Box C, MASA, 19 S. Jackson St., Montgomery 36104.

*The Printing Department*

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*Check Our Prices!*

**FAMILY PRACTICE AVAILABLE.** Large volume practice and office building available due to death of mid-forty practitioner in January, 1977. Practice fully equipped and located on main thoroughfare to Gatlinburg, Tennessee, in Sevierville, Tennessee. Extremely reasonably priced with excellent terms. Growing multi-specialty medical community, modern expanding hospital and nursing home facility in the foothills of the Great Smokey Mountains, only forty minutes from Knoxville. Contact by calling collect (615) 453-3821 or (615) 693-0041.

**IMMEDIATE OPENING FOR UROLOGIST** in 206 bed general medical and surgical VA Hospital, Montgomery, Ala. U.S. Licensure (any state) required. Excellent fringe and retirement benefits including malpractice coverage. Good medical library. Must be board certified/eligible. New ICU, RCU, and pulmonary function laboratory. Excellent facilities. Will pay travel and moving expenses. New VA physicians bonus. EEO Employer. Contact: Chief of Staff, VA Hospital, 215 Perry Hill Road, Montgomery, AL 36109, Telephone Number (205) 272-4670.

**IMMEDIATE OPENING FOR GENERAL SURGEON** in 206 bed general medical and surgical VA Hospital, Montgomery, Ala. U.S. Licensure (any state) required. Excellent fringe and retirement benefits including malpractice coverage. Good medical library. Must be board certified eligible. New ICU, RCU, and pulmonary function laboratory. Excellent facilities. Will pay travel and moving expenses. New VA physicians bonus. EEO Employer. Contact: Chief of Staff, VA Hospital, 215 Perry Hill Road, Montgomery, AL 36109, Telephone Number (205) 272-4670.

OFFICE FURNITURE & EQUIPMENT

**NEEDED:** waiting room furniture, business equipment, examining table, etc. Jefferson, Montgomery, Mobile, Huntsville county areas. Contact: 871-0505, Birmingham.

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OVERSEAS  
EMPLOYMENT OPPORTUNITIES

*Kwajalein, Marshall Islands*

PHYSICIANS

Two full-time positions available now for family doctors experienced in general practice and/or pediatrics. One position also available for a general surgeon. The staff of physicians, together with a total hospital staff of about 50 persons, provide both inpatient and outpatient medical services for an island community of about 3500 persons, both civilian and military, including families with children, and single status men and women.

The 28-bed Kwajalein Hospital is modern and recently enlarged, and has a fully equipped outpatient clinic to handle the large flow of outpatients, plus excellent laboratory facilities.

Tropical climate on a lovely coral atoll. Fantastic scuba and snorkeling, tennis and golf.

Modern family housing available. Excellent, fully-accredited schools, kindergarten through high school.

U.S. Citizenship required. Comfortable living conditions. One year contracts. (Some shorter assignment of 3 to 6 months sometimes available on a single status basis). Vacation, bonus and other fringes. Potential U.S. Federal tax exemption. Reasonable cost of living.

Interested persons should RUSH curriculum vitae to: Clyde E. Albert, P.O. Box 12156, Oakland, Calif. 94604. An equal opportunity affirmative action employer.

**GLOBAL ASSOCIATES**

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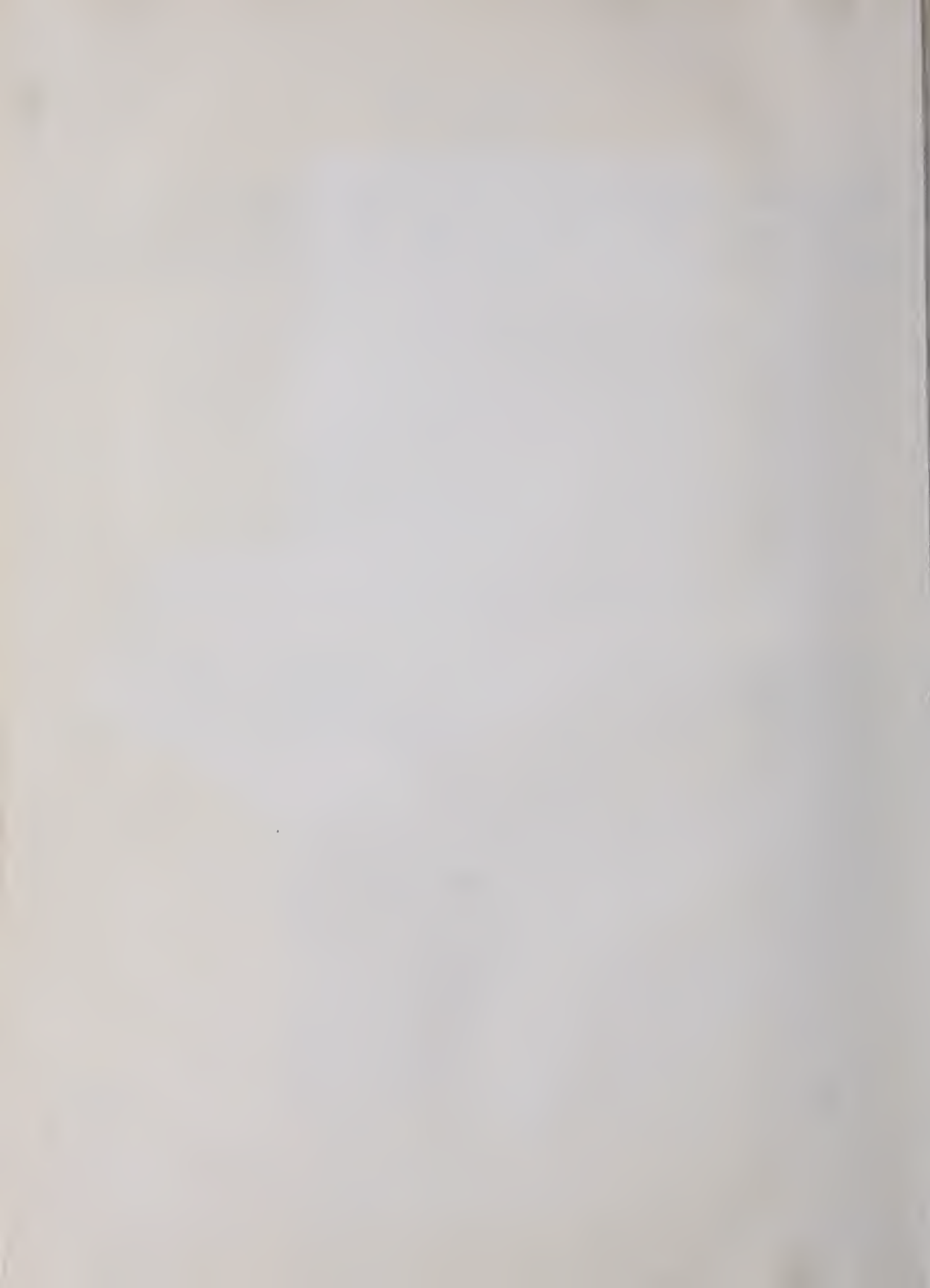
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